

The CHEMIST AND DRUGGIST

for RETAILER - WHOLESALER - MANUFACTURER

Established 1859

28 Essex Street, Strand, London, W.C.2

Registered as a Newspaper

No. 3079
VOL. CXXX

FEBRUARY 11, 1939

Annual Subscription (with
Diary) 20/- Single Copies 9d.

*The Soap with a Name
a Personality
and a Consistent Sale*

On reflection...

"FRE-FLO"

REGISTERED

*The Aspirin that
has set a new standard*

MANUFACTURED BY

W. J. BUSH & CO. LTD.
LONDON

SOLE SELLING AGENTS:

H. W. GRAESSER-THOMAS LTD.

49 LEADENHALL STREET, LONDON, E.C.3

ROYAL 3011 - 6111

"UNOMEE, FEN, LONDON."



Hurry! drene BONUS OFFER

to introduce amazing new Special Drene for Dry Hair

CLOSES FEBRUARY 28

**One FREE BOTTLE with every
11 purchased of Regular
and Special Drene**

Subject to only one condition—that you give Drene 14 days display on your counter and in your window.

BONUS APPLIES TO BOTH KINDS OF DRENE AND TO ALL SIZES. NO QUANTITY LIMIT. YOU CAN DOUBLE UP.

Give Special Drene and Regular Drene prominent display.

Now that there are two kinds of Drene, you can offer your customers the ideal shampoo they need for their particular kind of hair—whether it's normal, oily or dry.

And the introduction of Special Drene for dry hair will be backed by the greatest advertising campaign ever employed to launch a shampoo.

FRONT PAGE, DAILY MAIL

PAGE 3, DAILY EXPRESS

LARGE SPACES IN

NEWS OF THE WORLD

PEOPLE

SUNDAY EXPRESS

DAILY MIRROR

COLOUR PAGES IN

WOMAN

WOMAN'S OWN

will introduce Special Drene for dry hair to 20,133,000 readers.

SO SEND YOUR ORDERS NOW!

ORDER FORM

Order today from your Wholesaler or send this coupon direct to us.
Thomas Hedley & Co., Ltd., Brettenham House, Wellington St., London, W.C.2.

Please send me

REGULAR DRENE SPECIAL DRENE

NAME _____

.....doz. 6d. size doz. 6d. size

.....doz. 1/6 size doz. 1/6 size

ADDRESS _____

.....doz. 2/6 size doz. 2/6 size

Under conditions of Bonus Offer.

C & D.1.

A A

**THE HOUSE
THAT MADE**

COOLtan

SUCH A

Huge

**EKNER
BRINGS A NEW IDEA**



Examine the remarkable Ekner Formula—printed in full on every package. Ask yourself whether, if you felt 'below-par,' you would not rather take this Medicine than any competitive one. Consider the possibility of satisfactory repeat-sales if you support Ekner with your respected recommendation. Help us to make this a winner, so that we may continue with the type of Modern Advertising that is a credit to Modern Pharmacy—the illustrating of bright, happy modern people who spend money—rather than sad pictures of misanthropic souls in torture! Pharmacy is now building a new, smart and modern Headquarters—let it have, too, a new bright Ambassador in the Press!

*Order 'Ekner' TO-DAY from
your Wholesaler. Display
'Ekner' and brighten your
Windows and Counters.
Sell 'Ekner'—and
Smile!*

FOR A NEW AGE

14
Proven Medicines
In One
Brand-New
Formula

Success IS NOW OUT TO DUPLICATE THAT BIG SUCCESS— WITH **EKNER**

*Tonic
Health
Salts*

Everyone knows of the amazing success of 'Cooltan'! Well, the people behind that Product need another really Big Seller—one that will go all the year round. Hence EKNER. "Fine!" you say. "But how does that interest me?" It's this way. Your business needs continuous Public Interest to keep it alive and vital. . . . Interest out of the ordinary. 'Cooltan' appeals to the Public—in its Season. Its advertising puts into the minds of people—in a Dramatic way—those thoughts which bring them to your shop for many things you sell outside of 'Cooltan'! Well, if we can do likewise with Ekner that will interest you.

We have worked hard—and still work—to lay a sound foundation for the success of Ekner. Fourteen medicinals of known merit go into the Formula. A taste that's not bitter, nor sweet, nor neutral! A novel, striking, and attractively practical pack. A really interesting Lithographed Booklet, instead of an old-fashioned circular. Maybe these things will count.

Profit:

5½d. a Package Profit on 'Ekner'—that's basic! To the Public, this Product will sell at 1/11. That just takes it below the 2/- mark. And how your customers will like the idea of that penny change! Trade—17/6 a dozen. Special Quotations on Quantities of 6 dozen or over.

Advertising:

As bright and new as the Product. Snappy, sizeable ads. that will make people want to be well at once! In the National Press—seen by millions—everywhere.



'EKNER' IS DISTRIBUTED BY:—

SUN ISLAND CHEMICALS LTD., 320 REGENT ST., LONDON, W.1



$\frac{1}{4}$ lb. 9^D
 $\frac{1}{2}$ lb. 1/5
 1 lb. 2/9

**FOR DIGESTION
 SLEEP & ENERGY
 YOU CAN SAFELY RECOMMEND**

Cadbury's
BOURN-VITA

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NOW is the season for Record Sales OF BRAND'S ESSENCE

THE weather is treacherous! Ills and chills abound! NOW is the time for peak sales of BRAND'S ESSENCE, the life-giving safe stimulant which enjoys the complete confidence of doctors and the general public. Build up your stocks to benefit fully from the big demand created by BRAND'S far-reaching and scientifically-planned advertising. Feature BRAND'S eye-catching display material in your windows and on your counter—IT COSTS YOU NOTHING. And be sure to ask about our FREE WINDOW DRESSING SERVICE.

The Display Unit is in natural colour and is quite ready for use without assembling. It incorporates six dummy cartons of Brand's Essence, thus avoiding stacking and soiling your own stock. There are also three gaily COLOURED SHOWCARDS which hang or stand; and a set of FOUR CROWNERS for Brand's Essence Cartons.

**FREE display material
in colours
to back BRAND'S
most concentrated
press campaign**

POST THIS COUPON NOW

Please send me at once, and free of charge, display material as under:

.....Three-dimensional Display Stand(s)

.....Set(s) of Crowners for Brand's Essence Cartons.

.....Set(s) of Coloured Showcards

Name.....

Address.....

BRAND & CO. Ltd.
Mayfair Works, Vauxhall, London, S.W.8

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W. B. CARTWRIGHT LTD., RAWDON, LEEDS

BIGGER DEMAND

... INCREASED ADVERTISING

National Advertising this year is bigger than ever, due to Moorland sales in 1938 again breaking all records. These advertisements will bring you more customers, the merits of Moorlands will keep them for you. Order direct on best terms and be assured of over 40% profit.

It pays to display

MOORLAND

BRAND

INDIGESTION TABLETS

Staff Allen

FOR YOUR MEDICINAL RESINS

SCAMMONY—PODOPHYLLIN—JALAP

Send us your enquiries when next buying

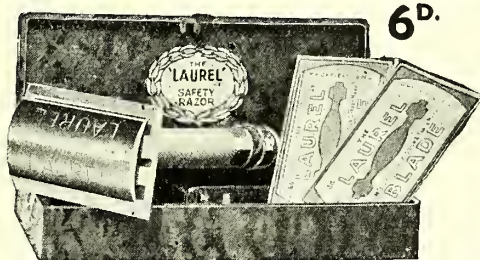
STAFFORD ALLEN & SONS LTD

MANUFACTURING CHEMISTS

20-42 WHARF ROAD, LONDON, N.1

TELEPHONE : CLERKENWELL 1000 (7 LINES). TELEGRAMS : STAFALENS, NORDO, LONDON

SHAVE WITH A "LAUREL"

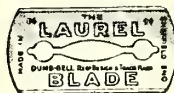
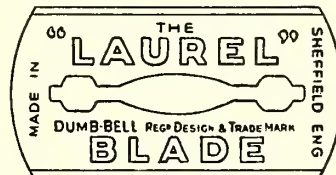


"LAUREL" DUMB BELL RAZOR

6^d. "LAUREL" PENNY BLADES—ALL TYPES
MADE IN SHEFFIELD, ENGLAND

**PENNY
BLADES**
FOR YOUR RAZOR

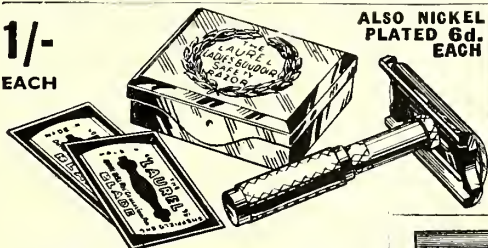
PACKET OF SIX
BLADES FOR
6d.



FITS ALL 3-PEG HOLDERS

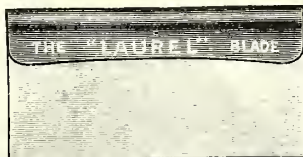


1/-
EACH



THE "LAUREL" LADIES'
GOLD-PLATED BOUDOIR
SAFETY RAZOR

COMPLETE WITH TWO BLADES AS
ILLUSTRATED



GEO. H. LAWRENCE LTD. LAUREL WORKS SHEFFIELD, 25571

BUILD YOUR BUSINESS ROUND

COB

A MIGHTY SELLING
AND ADVERTISING
SCHEME TO ASSIST
THE PHARMACIST

devised by

COX of Brighton

C - O - B

CHEMISTS' OWN BRAND

C - O - B

PACKAGING

An outstanding method of
Packing "OWN NAME"
Pharmaceutical Products
in modern and uniform
style, which brings Repeat
Business and establishes
Goodwill.

C - O - B

ADVERTISING

A Sales-creating move-
ment which includes
schemes of Direct Adver-
tising and facilities for
Special Displays to increase
the Sale of "OWN NAME"
Products.

write NOW for full details to -

ARTHUR H. COX & CO. LTD., BRIGHTON 7.



Leipzig
SPRING FAIR

1939



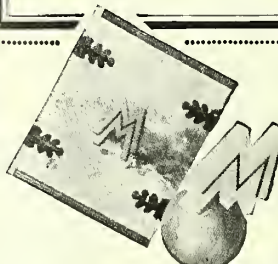
THE Leipzig Industries Fair, the
oldest, yet most progressive
INTERNATIONAL Trade Fair
in the world, offers unequalled
opportunities to all buyers to inspect new
products; see the latest models, compare
qualities and prices, form new buying con-
tacts, and purchase dependable merchandise.

Over 10,000 manufacturers from over 25
countries are representing all lines of
industry and commerce at Leipzig. The
efficient grouping of exhibits in 25 Fair
Palaces and 17 Halls simplifies buying.

**Inspect the well represented Section for the
Chemist and Druggist: Drugs, Pharmaceuticals,
Cosmetics and other Toilet Preparations.
Photographic, Optical and Cinematographic
Equipment. Glassware and Fancy Goods.**

The German Railways allow 60 per cent. reduction—
other railway and Steamship Companies allow simi-
lar reductions. Visas are free and other concessions
are granted to all visitors to the Leipzig Fair. Make
a note of the dates and write to-day to the London
Office for details and all the literature.

GENERAL SAMPLES FAIR.....March 5th to 10th
GREAT ENGINEERING FAIR
AND BUILDING FAIR.....March 5th to 13th



Telephone: Holborn 1408/9
Telegrams:
"Amtermesse," Westcent

**LONDON OFFICE OF
THE LEIPZIG FAIR**

First Avenue House,
45 High Holborn,
LONDON, W.C.1

Please send details and literature to:

YOUR NAME

NAME OF BUSINESS.....

ADDRESS

ANNOUNCING

"Sanatogen"TM

TRADE MARK

TONIC WINE



"SANATOGEN" Tonic Food, a product of Genatosan, Ltd., Loughborough, has been well known to the medical profession and the British public for a considerable number of years. The active ingredient of this famous nerve food is now being incorporated with a full-bodied wine to be known as "SANATOGEN" Tonic Wine, and we are naturally gratified that the sole marketing of this new "GENATOSAN" product has been entrusted to us.

Our many friends in the Pharmaceutical Trade can be quite confident that this new introduction will be advertised and pushed by us with our usual enthusiasm. The trade prices, especially for quantities, show retailers an excellent margin of profit, and our selling prices of 3/9 per bottle and 2/- per half-bottle are fully protected.

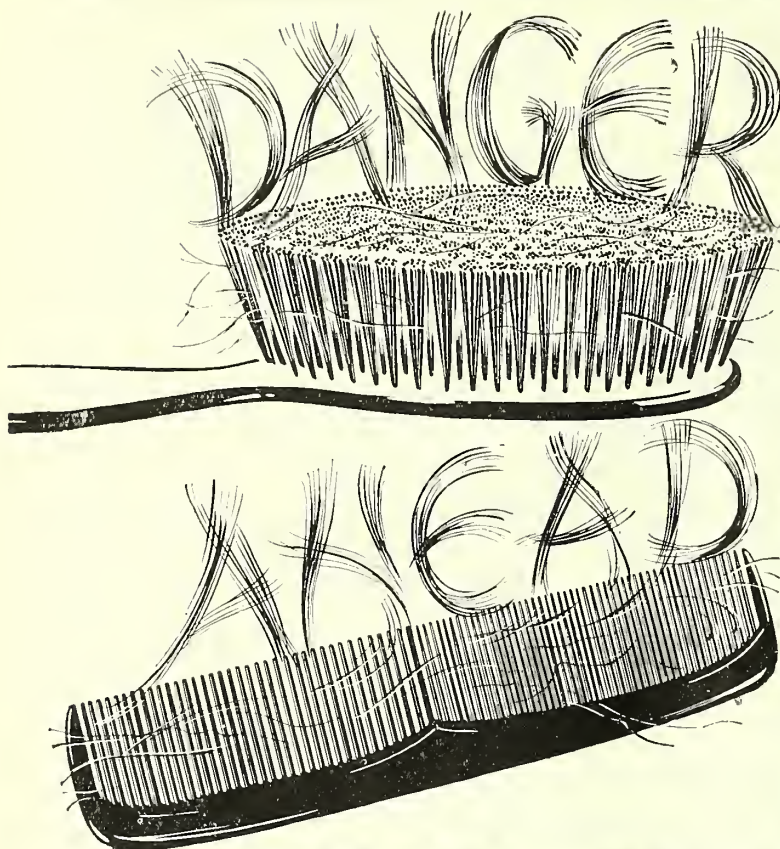
Please address all trade enquiries to the sole distributors :

WHITEWAYS CYDER CO., LTD., WHIMPLE, DEVON

London Depot :
Glasshouse Walk, Vauxhall,
London, S.E.11

Phone : Reliance 1151 (4 lines)

Northern Depot :
Wicker Station, Spital Hill,
Sheffield



YOU May Miss BIG BUSINESS

By Not Keeping
Regularly Stocked
with the Fast Selling

HARLENE

HAIR TOILET PREPARATIONS

BIG BUSINESS will come to those who regularly stock these regularly "asked for" lines. Order up a good stock **NOW** and thus make sure you will not disappoint customers in your locality.

KEEN ADVERTISING

offering a direct appeal to the Public, is the Keynote of a Bold and Regular Campaign in the National and Periodical Press. New customers will be created — present business **REACTIVATED!** Attractive Show Cards and full particulars are immediately obtainable on request to:

EDWARDS HARLENE LTD.

20/26 Lamb's Conduit Street
London, W.C.1



Keep a Good Stock of

HARLENE

HAIR GROWER & TONIC

Cremex Shampoo
Uzon Brilliantine
Harlene Wave-setting Lotion
Aston Hair Colour Restorer
Harlene Camomile Golden Hair Wash

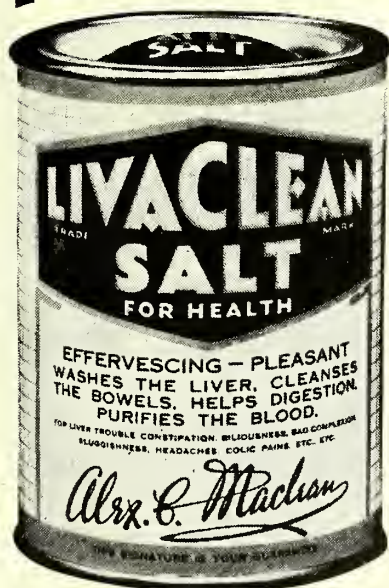
Harlene Camomile Shampoo
Harlene Golden Wave Set
Harlene Hair Cream
Harlene Soapless Shaving Cream
Harlene Brushless
Harlene Scalp Ointment

MACLEANS

Announce

NEW SUPER LIVER SALT

Giving 30% profit on turnover



Here is a line whose success is assured before you take a tin into stock—a new super Liver Salt supported by the biggest campaign Macleans have ever put behind a new product! And Livaclean brings you 30% profit on turnover—a big margin on a nationally advertised liver salt! Backed by a name the public knows and trusts, packed to match the famous Maclean toothpaste, Livaclean will be quickly sold by the

Biggest Advertising Campaign ever put behind a Proprietary

Big, forceful announcements in every important newspaper will carry the Livaclean message to every breakfast table in the country. Over 30,000,000 families will see this advertising—see it repeatedly again and again throughout the Spring—the best buying season ever for a liver salt. This campaign is going to profit every retail friend who stocks.

Direct Orders as small as 1 doz. small size or ½ doz. large size assure you 30 per cent. profit on turnover. Full particulars have been posted to you. Or ask our representatives for terms.

CONSIDER THESE SELLING POINTS

Packed in blue and grey tins bearing the famous signature Alex. C. Maclean, the pack is at once familiar and breaks down sales resistance.

Livaclean will not cake in the tin. All ingredients carefully dehydrated before packing.

Livaclean is a first-class product. Breezy, refreshing, exhilarating, a laxative, a liver-cleanser, a blood-purifier.

**Send Your
Order Today**

Macleans Ltd., Gt. West Road,
Brentford, Middlesex
Tel.: EALing 6616.

LIVACLEAN

keeps your liver LIVELY

Men of self-respect

Men of self-respect

shave with Gillette

One of the first things you notice about a way he is shaved. And your respect for him accordingly. From any man of common respect—no matter whether he's a manual worker—you expect to find the smooth shave, leaving his face the false economy of cheap blades do man. You can take for granted the long run most economical shave.

GILLETTE SETS 2.6 TO 35¢ • 87

with Gillette

with Gillette

you may not

MAKE THIS A RECORD YEAR WITH GILLETTE

1938 has been a successful year. But we're not resting on our laurels. 1939 will see Gillette sales soar still higher. We shall go forward together—to our most successful season yet!

"MEN OF SELF-RESPECT SHAVE WITH GILLETTE"

This is the theme of our 1939 campaign—the greatest drive that we have ever made. A drive that is designed to sell Gillette, the world's finest shaving system, to every class of man—be he rich or poor, town or country dweller!

This campaign is convincing, compelling advertising. And it is advertising on a vast scale! Big spaces are scheduled for the National papers . . . for a nation-wide drive in the provincial papers . . . evening papers . . . and the weekly papers, too. Total circulation of these papers is well over 13,000,000.

YOUR PART

We have got to work hand in hand—in practice as well as in theory! Your part is simple. Look to your displays. Keep them fresh. Make good use of our striking showcards in your windows and on your counters. Tie up with Gillette advertising—and we shall go forward together—partners in prosperity!

WARNING

LANALOL LIMITED

will at once take proceedings in the High Court against any person, firm or company offering for sale or selling any SUBSTANCE SUITABLE FOR USE UPON THE HUMAN BODY which is not of their manufacture under their Trade Mark "LANALOL" or under any mark so nearly resembling "LANALOL" as to be likely to lead to deception.

By an Action *Lanalol Limited v. Gordon Oliver Tutton*, 1938 L. 1985, Lanalol Limited obtained the following order of the High Court, Chancery Division :—

"THIS COURT DOTH ORDER that the Defendant his servants and agents be perpetually restrained from passing off substances suitable for use upon the human body and not being the Plaintiffs goods as and for the Plaintiffs goods by selling advertising offering for sale or otherwise dealing with or assisting any other person to deal with the same under the mark "Lamilol" or "Lanalol" or any other mark so nearly resembling the mark "Lanalol" as to be likely to cause deception

AND IT IS ORDERED that the Defendant do pay to the Plaintiffs their Costs of this Action including therein the Costs reserved by the said order dated 17th August 1938 such costs to be taxed by the Taxing Master."

LANALOL LIMITED

will take the appropriate legal action to prevent the registration of any Trade Mark similar to "LANALOL."

Upon the Application of LANALOL LIMITED the Assistant Comptroller, acting for the Registrar upon the 15th November, 1938, Ordered that the Mark "LAMILOL" should be removed from the Register of Trade Marks, and the Mark was so removed upon the 23rd December, 1938.



Does she buy them from you?

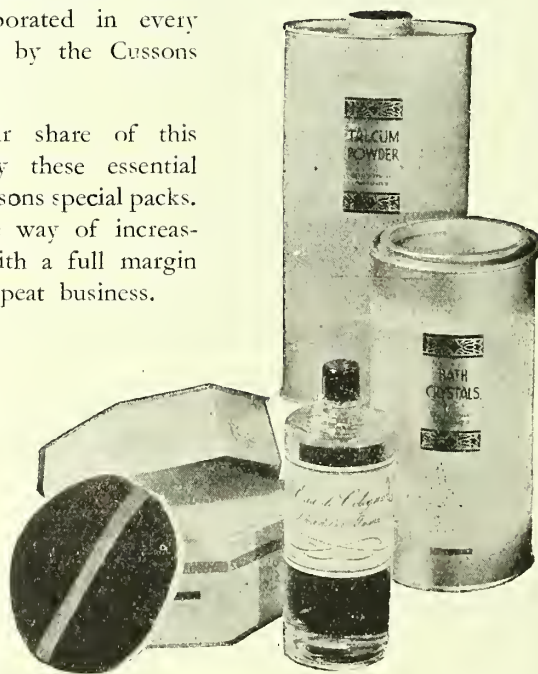
DO you know that of the annual £17,000,000 spent in Toiletries nearly half is expended on Toilet Soap, Toilet Waters and Toilet Powders? Does the woman who comes into your Store buy hers from you?

To-day she demands quality, tasteful pack and value—three items that are incorporated in every pack produced by the Cussons organisation.

To secure your share of this business, display these essential Toiletries in Cussons special packs. This is the one way of increasing turnover with a full margin of profit and repeat business.

Cussons Sons & Co. Ltd.

AND ASSOCIATED COMPANIES
KERSAL VALE, MANCHESTER



Galenicals



CONTINUOUS RESEARCH

Characterises the production of our
LIQUID EXTRACTS · TINCTURES · INFUSIONS
DECOCTIONS · EMULSIONS AND ALL
PHARMACEUTICAL PREPARATIONS

POTTER & CLARKE LTD.

Grams-Horehound, Phone, London 60-64 ARTILLERY LANE, LONDON, E.1
Grams-Horehound, Manchester 77 DANTZIC ST., MANCHESTER, 4

Phone-Bishopsgate 4761

Phone-Blackfriars 8734

Watersprite Regd.
MADE IN ENGLAND



NON-STRETCH FACE CLOTHS

in the NEW 2-colour CELLO WRAPPING will bring you bigger sales than ever this year.

Give prominence to G.218C, the popular

6d. Watersprite at 4/- doz. — assorted

Six delightful colours in counter display carton of twelve. Made from soft, durable, non-stretch turco which does not become slimy in use.

SOLPORT BROS. LTD. 184/192 Goswell Rd., London, E.C.1

Caradium

HAIR RESTORER

The Recognised Preparation for Restoring Grey Hair. IT IS NOT A DYE

CARADIUM enjoys a wonderful popularity with the Public as a unique preparation that is really SAFE and EFFECTIVE for restoring the colour to grey or faded hair. It contains radio active water that ensures success when other treatments fail.

CARADIUM is NATIONALLY ADVERTISED. Make sure you have sufficient stocks of this wonderful seller.

Retail prices 4/- and 7/6. Wholesale, 25% allowed on ½ Dozen and over.

CARADIUM REGD., 38 GT. SMITH STREET, WESTMINSTER, LONDON, S.W.1

COMPOSITION STOPPERS
BAKELITE MOULDINGS
COMPACTE COSMETIC & ROUGE BOXES



200 Varieties
Any Colour.

A suitable Composition Stopper will enhance the selling value of your package. Let us fit your Bottles and quote you.



W. J. SHARPLIN, Ltd. Telephone: Mountview 3952
Middle Lane Works, Hornsey, LONDON, N.8

CHEMIST

SIGNS

BUY DIRECT FROM THE ACTUAL MAKERS

NEON SIGNS

PRICES ON APPLICATION

Send for illustrated catalogue

SCINTILLATING SIGN SERVICE

3-5 Colebrook Pl., ISLINGTON, N.1

Telephone: Canonbury 2010

LA PARFUMERIE MODERNE

(Established 1908)

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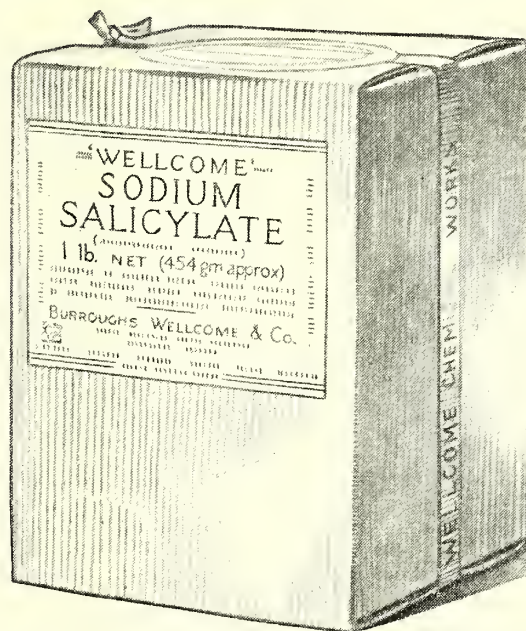
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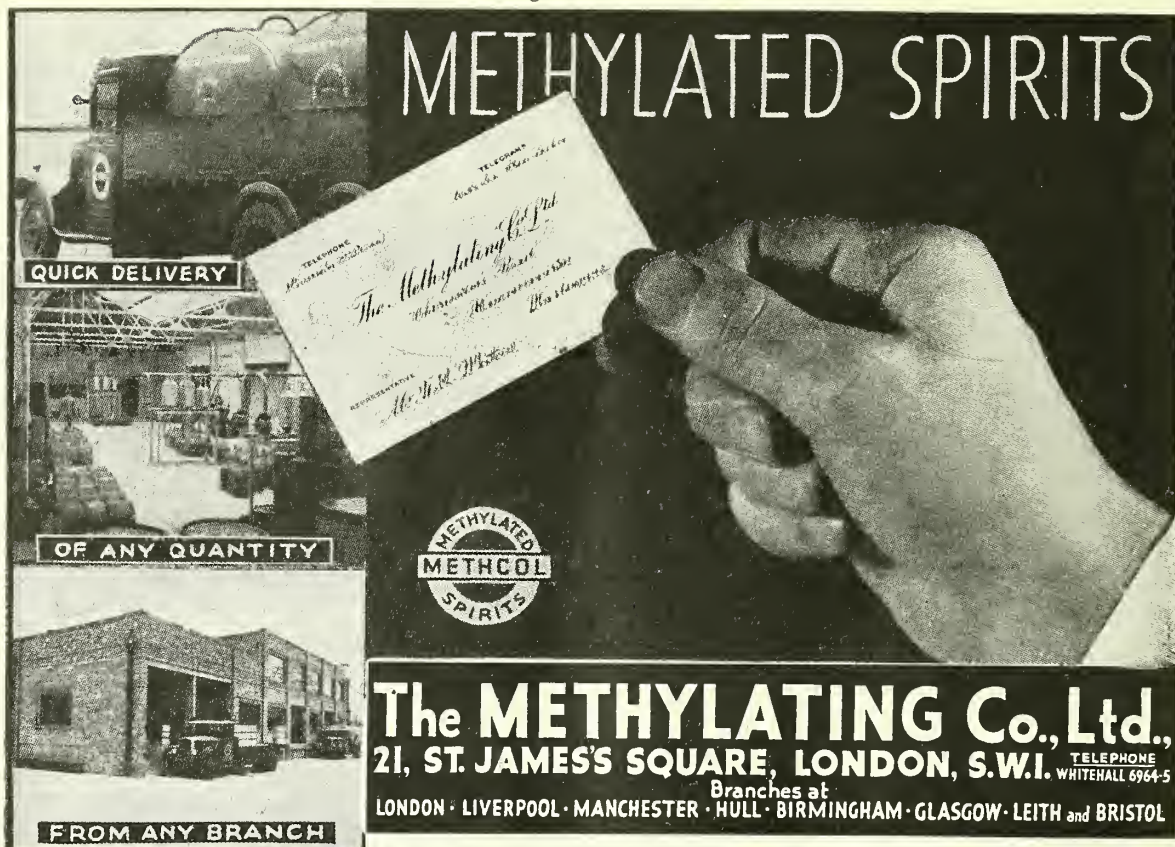


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News of the Week

Business Changes

MR. ALLEN L. GRIFFITHS, M.P.S., 68 Ebrington Street, Plymouth, has opened a branch pharmacy at Egg Buckland Road, Higher Compton.

MR. GEORGE COWIE, M.P.S., formerly of 37 Dublin Street, Edinburgh, has purchased the business of Ernest Hyatt, Ltd. (C. Woollons), 130 Brent Street, Hendon, London, N.W.4.

THE partnership between Mr. C. B. Harrison, M.P.S., Mr. W. S. Howells, M.P.S., and Mr. A. Gilmour, M.P.S., carrying on business as chemists at 150 Merton Hall Road, Merton, London, S.W.19, under the style of Harrison & Howells, and at 267 Kings Road, Chelsea, London, under the style of Isaac Lloyd, has been dissolved. The businesses will be carried on under the same titles by Mr. C. B. Harrison and Mr. W. S. Howells in partnership.

Proprietary Articles Trade Association

ADDITIONS TO PROTECTED LIST.—*Aimée Lloyd & Co.* (1933), Ltd., Skintex tonic cream, 9d., 6s. doz.; 1s. 3d., 10s. doz.; 2s. 6d., 20s. doz. (in two forms—for hands or feet). *Prichard & Constance (Manufacturing), Ltd.*, Amami cuticle cream, 6d., 4s. doz.; Amami hand jelly, 6d., 4s. doz.

ALTERATIONS.—*Potter & Clarke, Ltd.* Bonus offers: Dr. Thompson's dandelion coffee essence and dandelion coffee.—Bonus discount of 5 per cent., in return for display, will be allowed to retailers on orders of six dozen assorted sizes, if journey account or, in the case of no journey, monthly account. Dr. Thompson's malted slippery elm food.—Similar bonus will be allowed on orders of six dozen assorted sizes.

DELETIONS.—*George King & Co., Ltd.*, Wheatrex and Oatrex. *Prichard & Constance (Manufacturing), Ltd.*, Amami cuticle cream, 1s. size.

Bath

DANCE AT PUMP ROOM.—The annual dance of the Bath Branch of the Pharmaceutical Society was held at the Pump Room on January 24. Snow prevented the attendance of many who would otherwise have been present, but nearly 300 persons attended, including some from Bristol, Wells, Gloucester and Chippenham. Numerous spot and novelty prizes were to be won, provided by wholesale druggists and perfumers. These were presented by Mrs. D. J. Williams (wife of the president). Licensed and "dry" buffets were supplemented by a milk bar. The social secretary (Mr. Lionel Williams) and committee consisting of Messrs. D. J. Williams, Luther Wilson, W. J. Hallett, C. Haskins, A. Wilson, E. Rogers, R. H. Moore, C. H. James, T. Cornish, and Miss N. Ozzard, were responsible for the arrangements. Picture, page 141.

Bolton

ELECTION OF OFFICERS.—The annual meetings of the Bolton Pharmaceutical Association and Branches of the Society and the National Pharmaceutical Union were held on January 26,

when the following officers were elected:—*President*, Mr. W. Rothwell, Ph.C. (portrait, p. 141); *Vice-President*, Mr. Gilbert Brown; *Treasurer*, Mr. J. Brindle; *Secretary*, Mr. J. S. Walmsley, 32 Manor Street, Bank Street, Bolton; *Committee*, Messrs. V. Slater and W. E. Watson. The officers and members of the Committee form the local executive for the Branches of the Pharmaceutical Society and the National Pharmaceutical Union. The secretary, giving an account of the work of the Association during the past year, spoke of the action taken in respect of the Chemists' Friends scheme, the Proprietary Articles Trade Association, and the air-raid precautions training. He appealed on behalf of the Society's Benevolent Fund and centenary building fund.

Brighton and Hove

ANNUAL DINNER AND DANCE.—The annual dinner and dance of the Brighton and Hove Association of Pharmacy was held at the Grand Hotel, Brighton, on January 26, Mr. Cecil V. Brunwell presiding. Guests included Mr. Thomas Guthrie (president, Pharmaceutical Society), the mayors and mayoresses of Brighton and Hove, Mr. J. M. McCornish, F.R.C.S. (chairman, Brighton Division, British Medical Association), Mr. MacKay (chairman, local Dental Association), Mr. and Mrs. H. S. Brown, Eastbourne, Mr. Storm, Worthing, and Mr. Skyrme, Hastings. "The Pharmaceutical Society" was proposed by Mr. C. V. Brunwell, who said he knew no body which gave so much service to the public for so little in return. He was optimistic for the future with such leaders as pharmacists had to-day. Mr. Thomas Guthrie, replying, referred to the changes he had experienced, and went on to say that at last pharmacists had received official recognition from the Government. He appealed to all pharmacists to give support in any way they could when questioned by the Society regarding their services in emergency. Mr. H. B. Mackie proposed "The Medical and Dental Professions," and Mr. H. J. McCurrie, in reply, sympathised with the Society in obtaining official recognition which, he was afraid, was a mixed blessing. Mr. Donald Hudson proposed "The Ladies and Visitors," and the mayors of Brighton and Hove responded. Picture, p. 141.

Coventry

INNOVATION.—A whist drive, dinner and dance, instead of the usual annual dinner, was held by the Coventry and Warwickshire Branch of the Pharmaceutical Society at Coventry on January 26. Welcoming the guests, Alderman C. Davis (a member of the Society's Council and chairman of the Branch) expressed his pleasure at the good attendance and gave a special welcome to Mr. E. Saville Peck (a past-president of the Society). The Mayor of Coventry proposed

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the toast of the Pharmaceutical Society, showing an intimate knowledge of the affairs and duties of the Society, which he said had practically become a Government department now that every pharmacist had to pay retention and registration fees. Mr. Peck, in his reply, expressed the wish that there should be more apprentices in Coventry. He stressed the importance of the new building in Brunswick Square, which he said would, for the members of the Society and the generations that would follow, be not merely the headquarters of pharmacy in this country, but in some measure for the whole Empire. This home for pharmacy would, however, be costly, and pharmacists must assist individually. Mr. Peck deplored that the public, by purchasing medicine from traders other than chemists, were helping to destroy that system of protection which the Government intended them to have. It was a duty of all pharmacists to make it known to the public, by all reasonable means, that the purpose for which pharmacists were trained and educated was to protect the public from the dangers inherent in the mishandling of drugs. Mr. A. Smith, Coventry, concluded the proceedings by proposing the toast of the chairman of the Branch, and Alderman Davis, in his reply, expressed his gratitude to the vice-president (Mr. C. H. Welton) and the dinner committee. Dancing and whist continued until 2 a.m., the following being successful in winning whist prizes: *Ladies*, first, Mrs. F. J. Bray; second, Mrs. F. C. Wilson; mystery, Mrs. C. H. Welton. *Gentlemen*, first, Mr. F. J. Bray; second, Mr. H. A. Brooke; third, Dr. H. E. Smith.

Hanley

STAFFORDSHIRE PRODUCTS FOR NEW BUILDING.—Mr. W. Deacon (vice-president, Pharmaceutical Society) attended a supper arranged by the North Staffordshire Branch at Hanley, recently, and afterwards gave a lantern lecture on "Pharmaceutical Headquarters, Old and New." Mr. Deacon said that the Society's research laboratories supplied information to all parts of the world. Only recently the Government of Ceylon had sent specimens of all fruit grown on the island for a report of their vitamin content. Mr. J. A. Dale proposed, and Mr. H. C. Shaw seconded, a resolution that the Pharmaceutical Society should devote all subscriptions from North Staffordshire to provide the new building with products of North Staffordshire (sanitary ware, tiled fireplaces) as a special gift from the North Staffordshire chemists. The company included Messrs. W. F. Redfern (president of the Branch), J. A. Dale, H. C. Shaw, W. H. Kemp, and fifty other members.

Ipswich

ASSISTANCE TO FLOOD VICTIMS.—During recent serious flooding in the town, as a result of which about 3,000 houses were damaged, a soup kitchen for the victims was opened by Grimwade, Ridley & Co. (Ipswich), Ltd., wholesale chemists.

CONTROVERSIAL QUESTIONS.—Mr. H. N. Linstead, O.B.E. (secretary of the Pharmaceutical Society) gave an address to members of the Ipswich Branch of the Pharmaceutical Society, recently, on "Controversial Questions." He dealt with patent-medicine legislation, Air-Raid Precautions, national service, organisation of assistants, the new building, and the training of apprentices, and invited his audience to express their views. An animated discussion followed in which most of the audience joined. The chairman (Mr. L. Piper) proposed a vote of thanks, which was seconded by Mr. J. C. Wiggin. Mr. Piper subsequently reported on the progress of arrangements for an anti-gas and first-aid course for local chemists, saying that negotiations with the Medical Officer of Health had come to an unsatisfactory conclusion, but that he hoped to make other arrangements shortly.

London

STAFF FESTIVITIES.—Barclay & Sons, Ltd., wholesale chemists, held a staff party at St. Bride Institute, London, on January 28, which was attended by nearly 200 employees and friends. The managing director (Mr. H. G. Gowers) was present, with Mrs. Gowers, who presented the prizes.

ROYAL SOCIETY.—A conversazione was held by the president and council of the Royal Society, Burlington House, Piccadilly, London, W.1, on February 7, on the occasion of the inauguration of the national appeal by the Society for the protection of science and learning. A large number of guests

was received by the president of the Society, Sir William Bragg, and the vice-president of the British Academy, Sir Frederick Kenyon. A welcome was given to the distinguished gathering by Sir William Bragg and Sir F. Kenyon, to which the Archbishop of York replied. Various scientific exhibits were arranged in the Society's premises, and the rooms of the Geological Society were also opened for the occasion. A programme of music followed later in the evening.

BILLIARDS AND SNOOKER.—The result of the billiards and snooker match, Western Pharmacists v. McClure, Young & Co., Ltd., on February 3, was as follows (Western names first):—

SNOOKER (two frames)			
1. Cronin, E. D.	.. 76 and 62	Burden, A. C.	.. 16 and 33
2. Bridge, D.	.. 71 and 60	Banfield, S. H.	.. 24 and 24
3. Eacott, R. G.	.. 27 and 41	Sharp, A.	.. 70 and 52
4. Usher, J.	.. 81 and 33	Young, G. H.	.. 37 and 36
5. Pratt, W. T.	.. 75	Ford, S. H.	.. 60

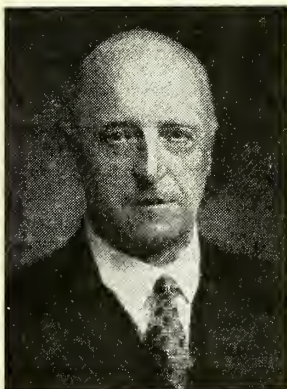
Western thus won by six frames to three.

BILLIARDS (100 up)			
Cronin .. .. .	.. 100	Burden .. .. .	.. 82
Eacott .. .. .	.. 100	Sharp .. .. .	.. 54
Usher .. .. .	.. 100	Young .. .. .	.. 95

LONDON WELSH PHARMACISTS.—At a meeting of the London Welsh pharmacists, held at 17 Bloomsbury Square on February 1, Mr. Humphreys Jones, Liverpool (chairman of the Welsh Appeal Fund) presided, supported by Messrs. W. S. Howells and G. R. Knox Mawer (secretaries). After Mr. Howells had read various messages of goodwill received, Dr. T. Dewar (a member of the Pharmaceutical Society's staff) gave an illustrated lantern lecture on the old and new buildings, and Mr. G. A. Dance paid a tribute to the late Sir William Glyn-Jones. Mr. Howells outlined the arrangements that were to be made in London, and an executive committee of London Welsh pharmacists was set up. Mr. Knox Mawer then gave a short sketch of the steps which had been taken in Wales in connexion with the appeal.

PUBLIC PHARMACISTS.—At a meeting of the Guild of Public Pharmacists on January 24 the president (Mr. F. B. Royal) in the chair, an address on "The Work of a Modern Clinical Laboratory Unit," illustrated by colour-photomicrographs, was given by Mr. F. C. O. Valentine, M.R.C.P. (assistant director, department of clinical pathology, bacteriology and chemical pathology, the London Hospital). Dr. Valentine outlined the history of the London Hospital unit from its formation in 1908, when it consisted of one room, to the present-day department of twenty-two rooms, twenty-three qualified staff and twenty-one lay staff, which, during 1938, dealt with 6,742 blood chemical examinations, 13,500 blood counts, 1,960 general bacteriological investigations, 10,700 tests for bacteria in urine, 1,134 examinations of stools, 1,828 sputa, 2,800 Wasserman reactions, 3,600 swabs for diphtheria, 517 basal metabolic rates, 218 Friedman and Zondek-Aschheim tests and 282 animal inoculations, besides research work. After a short discussion, a vote of thanks was proposed by Mr. J. Moore and seconded by Mr. R. H. Henriksen.

MISS SHARPLES ON C.D.A. CLAIMS.—At a meeting of the West London Branch of the National Pharmaceutical Union on January 18 the speaker was Miss B. Sharples, Ph.C. (assistant secretary to the Union), on "The Team Spirit." Miss Sharples discussed how the ultimate success of the Union depended upon the co-operation and support of individual members. She dealt at length with the work of the Chemists' Defence Association, and pointed out the responsibility of members to assist in restricting claims as far as possible. The public was becoming more "claim-minded," and the C.D.A. during 1938 had experienced its heaviest claims. The C.D.A. had a minimum of rules, but it was incumbent upon members to notify the office at the earliest moment if a claim was likely to arise, and to make no admissions. A resolution was carried with enthusiasm complimenting the Executive of the National Pharmaceutical Union upon its success in negotiating for the abolition of the discounting clause in chemists' National Health Insurance contracts. A further resolution was carried requesting the Executive to approach manufacturers of ethical pharmaceutical proprietaries with a view to ensuring a more remunerative profit on these products. A vote of thanks to Miss Sharples was proposed by Mr. Frank Noble and seconded by Mr. Turvey.



News in Pictures

MR. WILLIAM ROTHWELL, Ph.C., elected president, Bolton Pharmaceutical Association (see p. 139). Mr. Rothwell qualified in 1903 and passed the Major examination in 1905. He commenced business on his own account in Bolton thirty years ago.

Above: BRIGHTON DINNER—Guests at annual dinner of Brighton and Hove Association of Pharmacy (see p. 139).

Below: BATH BRANCH DINNER—Guests at the Pump Room, Bath (see p. 139) in front, seated and standing, are members of organising committee.

WEDDING—Mr. F. Gillibrand (secretary, N.E. Lancs branch of the Pharmaceutical Society) with his bride. Members of the Branch presented him with a silver tea service.



Mansfield

TELEGRAM FROM THE KING.—At the annual dinner of the Mansfield Branch of the Pharmaceutical Society on January 25 a telegram in the following terms was read: "The King sincerely thanks the members of the Mansfield and District Branch of the Pharmaceutical Society of Great Britain dining together this evening for their loyal greetings, which His Majesty as patron much appreciates." Mr. Charles Brown (Member of Parliament for the Division), proposing "The Society," referred to its long, honourable and useful history. Replying, Mr. W. Deacon (vice-chairman of the Society) took listeners back to the humble origins of the Society and contrasted them with present-day advancement and with the future in the new headquarters. He then made the announcement, news of which had only that day been received, that the Society had been requested by the Ministry to make up its own register for use in a national emergency. Mr. W. Lee, Nottingham, proposed the toast of the Branch, and said it might well have adopted years ago the motto "We must go forward," since it had gone ahead by leaps and bounds during the last few years. Mr. P. D. J. Spaanderman responded, thanking members for support during his year of office as chairman.

Merseyside

ADDRESS AND A RESOLUTION.—Chemists' insurances were discussed by Mr. W. W. Atkinson, Southampton, at a meeting of Birkenhead and Wirral Branch of the National Pharmaceutical Union held at Birkenhead on February 1. He declared that the Chemists' Defence Association third-party insurance gave complete indemnity. In subsequent discussion, it was emphasised that greater unity of purpose among chemists could only result in giving them the same power and standing as was held by the medical profession. The following resolution was carried unanimously:—"That the Pharmaceutical Society request the Home Office to amend the regulations with regard to dangerous drugs and substances contained in the fourth schedule so as to enable pharmacists, in cases of emergency, to accept telephoned prescriptions on the undertaking by the doctor that a prescription in writing will be supplied to the pharmacist within twenty-four hours." The meeting concluded with a vote of thanks to Mr. W. W. Atkinson, proposed by Mr. Wright.

Nottingham

PRESENT POSITION OF THE P.A.T.A. DISCUSSED.—A combined meeting of the Nottingham Branch of the Pharmaceutical Society and the local branch of the National Pharmaceutical Union was held on February 1, Mr. W. A. Appleby presiding. Mr. John Hague, Lincoln, attended and on behalf of the chairman introduced Mr. H. E. Chapman (secretary, Proprietary Articles Trade Association), who then spoke on "The Present Position of the P.A.T.A." The speaker outlined the growth of the Association since 1896, when Mr. W. S. Glyn-Jones (as he then was) met Nottingham Pharmacists to persuade them to join his proposed Association. The address was listened to with great attention, and at its close various questions were asked. On the invitation of Messrs. Hague and Chapman, Mr. John Lawson (Boots, Ltd.) addressed the meeting. He stressed that any action that harmed the P.A.T.A. might cause irreparable damage. A vote of thanks to Messrs. Hague and Chapman was proposed by Mr. C. E. Reynolds and seconded by Mr. F. W. Shepherd.

Preston

SOCIAL EVENT.—At the Preston Pharmacists' Association's annual dinner, dance and whist drive on January 26 Mr. F. A. Dixon (president) was present with Mrs. Dixon, who presented the whist prizes. An attractive programme had been prepared by a committee which included Messrs. W. G. Mercer (chairman), C. C. Livesey (secretary), H. Moon, C. Noblet and F. McLoughlin. The M.C.s for dancing were Messrs. C. Noblet, C. G. Livesey, J. McDougall, F. Steele and M. McLoughlin, and the whist drive was supervised by Mr. F. A. Williamson. The whist prizewinners were:—*Ladies*, first, Mrs. Evans; second, Mrs. Carter; third, Mrs. Dixon; consolation, Mrs. E. Wood. *Gentlemen*, first, Mr. D. Gray; second, Mr. T. Christopher; third, Mr. C. Chaloner; consolation, Mr. S. R. Fisher.

Sheffield

LOCAL BUILDING-FUND COMMITTEE FORMED.—A meeting of the Sheffield Branch of the Pharmaceutical Society was held on February 2, when an address on "The New Building" was given by the secretary of the Society (Mr. H. N. Linstead). He said the total cost of the building, fittings, contents, etc., amounted to £350,000. Of this sum, £300,000 had already been found, part from the Society's accumulated reserves, part from donations, and the remainder from a loan which will be repaid from the Society's normal income, without further call upon members. There remained the sum of £50,000, towards which various bodies and firms were contributing. Questions on the Society's educational standard, the upkeep cost of the new building, and the school of pharmacy were answered by Mr. Linstead, and after discussion it was decided to set up a committee, with power to co-opt additional members, to deal with local arrangements. Messrs. J. T. Appleton, C. A. Fox, W. A. Bellamy, C. W. Hobson, W. D. Hunter, E. Preston, H. W. Stiles, J. F. Watts were nominated, together with the branch officers. A vote of thanks to the secretary was proposed by Mr. J. Austen, seconded by Mr. Craven.

Miscellaneous

NATIONAL-SERVICE OFFER TO EMPLOYEES.—As an inducement to their staff to join the Territorial Army, Bovril, Ltd., London, offer members of the staff two weeks' holiday at full pay in addition to their usual annual holiday.

IN THE COURTS.—At Clacton, recently, Murrays Chemists (Clacton), Ltd., Electric Parade, were charged with selling a poison when not authorised sellers of poisons and with the sale not being effected by or under the supervision of a registered pharmacist. Defendants were fined £15 on the first summons and £5 on the second.—At Spilsby, on January 30, Mr. A. Venables, M.P.S., Burgh, Lincs. was fined £1 for supplying a bottle of whisky during restricted hours.—At Lambeth, London, Police Court, on February 2, Irene Lawrence, typist, sued P. H. Galloway, Ltd., Walworth Road, S.E., for £3 os. 9d. for wages due. Judgment was given for the plaintiff for the amount claimed.

Irish Notes

Belfast

MR. A. W. MANN, Ph.C., was re-elected treasurer and one of the secretaries at the annual meeting of the Ulster Centre, St. John Ambulance Association.

NATIONAL SERVICE.—Councillor T. F. Cole, Ph.C. (High Sheriff of Belfast), and Mr. Fred Storey, Ph.C., have been appointed members of the Belfast County Borough National Service Committee.

APPARATUS DEMONSTRATION.—Fred. Storey, Ltd., gave a demonstration of physical therapy and x-ray equipment in the Grand Central Hotel, Belfast, on January 31 and February 1 and 2.

LANTERN LECTURE.—Under the auspices of the Pharmaceutical Society of Northern Ireland an illustrated lantern lecture was given on "Hormones" by Dr. J. Stanley White on February 6. Over 200 were present, including a number of medical men. Mr. Walter C. Tate, Ph.C. (president), occupied the chair. Dr. White dealt with hormones elaborated in the human body, explaining how the pituitary gland dominated practically every so-called ductless gland of the body, and giving the reasons why the anterior lobe of the pituitary body was responsible for growth and development. A vote of thanks to the lecturer was proposed by Mr. E. A. Richey (president, Ulster Chemists' Association), and seconded by Mr. H. H. Cowzer, Professor E. B. C. Mayrs, M.D., also spoke.

Miscellaneous

NEW BUSINESS.—Mr. Cecil Anderson, M.P.S.N.I., is opening a pharmacy at Thomas Street, Dungannon, co. Tyrone.

COMPOUNDER'S SALARY.—By four votes to two the Limerick Board of Health decided to adhere to its decision to appoint a compounder at Croom County Hospital for two years at a salary of £105 per annum. The Local Government Department, Dublin, had written pointing out that the salary of the previous compounder had been £150 and there appeared no reason for the change.

WARNING TO FARMERS.—The monthly report of the Ministry of Agriculture of the Government of Northern Ireland contains a warning against the use of worthless oils purporting to be cod-liver oil. "All oils with a fishy smell are not necessarily cod-liver oils," the report states, "neither are all cod-liver oils rich sources of the vitamins A and D." In a recent survey carried out by the Ministry, fourteen samples of oil were bought from shops at various places throughout the province. In every case "cod-liver oil" was asked for when the purchase was being made. Eleven were found to be not cod-liver oil but worthless substitutes. Some were shark oils, some were whale, and some grossly adulterated with mineral oils. Only three were cod-liver oils, and two of these were of inferior quality.

Scottish Notes

Scottish Pharmaceutical Federation

A meeting of the executive council of the Federation was held in Edinburgh on January 25, Mr. J. Weir (president) in the chair. Among other matters, the following were under consideration:—Co-operative societies and Section 9 of the Pharmacy and Poisons Act, 1933; Chemists' Friends Association; Minister of Labour's inquiry into the wages, hours and conditions in the retail distributive trades in Scotland; N.H.I. dispensing fees; and the Scottish Distributive Traders' Co-ordinated Committee. The following indemnity claims were reported:—Supplying sol. alum. ac. instead of sol. picric. ac.—not yet settled; supplying surgical spirit instead of lime

water—settled for £125 and £10 10s. expenses; the deaths of two animals alleged to be caused by a mixture supplied—not yet settled; injuries alleged to be sustained as a result of medicine supplied in a dirty bottle; settled for £15 and £5 5s. costs; coat burned by a gas radiator—settled for £1; damage caused to a denture by a piece of glass in malt and oil; claim was met by manufacturers. The following N.H.I. test prescription cases were reported:—A deficiency in mag. sulph. of 8 per cent. in a mixture—member, who was advised as to the course he should adopt, was admonished; deficiency of 9 per cent. chloral hydrate and 15 per cent. of pot. brom.; member was not advised as to the course he should adopt and was admonished. The complaints dealt with included an inducement to sign a contract for an encyclopædia, by misrepresentation; exemption from jury service; charges against a member under the Food and Drugs (Adulteration) Act, 1928; charge against a member under the Shops Act, 1912; charge against a member under the Dangerous Drugs Regulations.

Miscellaneous

MR. J. H. GORDON, M.P.S., has acquired the business of Mr. Alexander K. Henderson, M.P.S., 9 St. Cuthbert Street, Kirkcudbright.

ASSOCIATION OFFICERS.—The annual general meeting of the Dundee Pharmacists' Association was held on January 31, and the following were elected office-bearers for 1930: *President*, Mr. R. Mackenzie; *Vice-President*, Mr. J. A. Milne; *Secretary and Treasurer*, Mr. J. B. Coupar, 50 Union Street; *Committee*, Miss C. D. R. Muir, Messrs. C. Duncan, W. Hall, J. R. Milne, J. H. Ferguson, A. R. Lowson, P. Mitchell, J. Anderson, and J. R. Brown.

Topical Reflections

By Xrayser

The Emergency Register

The first editorial article in your issue of February 4 (p. 125), and the report of the Council meeting of the Pharmaceutical Society on the next page, indicate that the proposed register of pharmacists willing to offer their services in a national emergency is already taking shape. For the present I must confine my comment to two points. One point is that if, in time of war, the consumption of chemists' time (and of a disproportionate amount of your space) is to be avoided by the proceedings of recruiting tribunals or their equivalent, there must be a clear-cut definition of the classes of persons who will as a matter of course be retained in their existing positions. I have written "persons" rather than "pharmacists" because of certain wording in the earliest list of reserved occupations I have been able to trace, the list under what was known as the Derby scheme printed in your issue of November 27, 1915. There, in a paragraph headed "Chemical Trades," the last entry reads: "Chemist in the sense of a person dispensing medicines under the National Insurance Acts." This is an unsatisfactory definition, if only for the reason that it ignores the Poisons and Pharmacy Act of 1908. Having obtained an agreed classification, chemists will have to see to it that the activities of the appointed tribunals do not result in any infringement of the arrangement that may have been made with the appropriate authority.

A Possible Danger

The other point is that the inclusion of apothecaries' assistants in any register should be accompanied by adequate safeguards against subsequent abuse. In the event of a shortage of chemists' assistants capable of dispensing insurance prescriptions under supervision, people with a certificate entitling them to dispense for an apothecary are to be preferred to casual labour picked up in drug stores; but their status in a register of the kind contemplated should not be that of a pharmacist. Otherwise we might be faced, when the national emergency ended, with the effects of some clause in the Pharmacy and Poisons Act of 1933 that even writers of books on forensic pharmacy had overlooked, just as in 1919 chemists were suddenly faced with the implications of Section 4 (b) of the older Act. The controversy arising from the admission of

apothecaries' assistants to the Register of Chemists and Druggists was, without exception, the most bitter of which I have had experience in pharmacy. I have refreshed my memory by taking from its shelf my volume of the *C. & D.* containing reports of the numerous meetings, speeches and letters which preceded the passing of the notorious by-law. I find, for instance, that in your issue of June 28, 1919, there is correspondence on the subject extending to more than five columns. The acute division of opinion among responsible pharmacists during those critical weeks was not to the advantage of the profession; and the only consolation for most of us, when the list of admissions to the Register was finally closed, was that the number of applicants accepted might have been more formidable. Once bit, twice shy.

Absentees, Active and Passive

In your report of a North London meeting on page 114 I read: "... Mr. J. C. Young thought the majority of those present were of the converted; it was the absent members who took no interest." I am concerned here with only the latter half of the sentence. Is it usually the case that members of an association who do not attend its meetings frequently are lacking in interest in its work? Surely such people are rare. Whether there are in fact too many meetings in any sessional programme of a pharmacists' association is primarily a question for each local committee to decide in the light of local and general circumstances; but I am certain that most of us have too many interests to justify regular attendance at meetings of chemists held for the transaction of routine business. Not long ago a friend "buried" in an agricultural district included in a letter, by way of dispelling a possible illusion that his life was dull, a list of from twenty to thirty engagements carried out within the space of a few weeks. I sincerely pity the man who, when his shop closes, creeps into some back room and spends the rest of the evening in book-keeping; and to exchange the dust of his ledgers for that of an atmosphere of trade problems is not necessarily to gain anything—except, perhaps, a headache. As a rule, your reports of such meetings contain all we need to know. There should, however, be in ordinary circumstances a good attendance at the annual meeting of every association.

Imperial and Foreign News

Canada

DEATH.—Mr. C. F. Heebner, Dean Emeritus of Toronto College of Pharmacy, died at Toronto in December 1938. He was over eighty years of age. His association with the College dated from 1891 when he joined the staff, being made dean the following year. Dean Heebner retired from active service at the College in 1937.

Denmark

EMPLOYEES' AGE-LIMIT PROTEST.—An association of employee dispensers has drawn up a petition in regard to the granting of licences to commence an independent business; the petition is being submitted to Parliament. At present, the age limit at which an employee can obtain a licence to commence practice is fifty-five years (see *C. & D.*, June 11, 1938, p. 671), but under existing legislation this will be lowered in 1942 to fifty years. The petitioners wish the age limit to be raised rather than lowered, otherwise 410 present dispensers will never be able to obtain the licence. It is pointed out that forty-two well-known chemists and druggists in Denmark were already, in 1938, long past the age at which a licence would be granted under existing conditions or at which any State employee would still be on the active list. The oldest chemist still practising is eighty-four years of age, three are eighty, and the rest of the forty-two are between seventy and eighty years old.

India

INDIAN JOURNAL OF PHARMACY.—The first issue (January-March 1939) of a new pharmaceutical publication, the "Indian Journal of Pharmacy," has appeared. The quarterly is issued under the auspices of the United Provinces Pharmaceutical Association, Benares, of which it is the official organ.

DEFECTIVE ERGOT PREPARATIONS.—Of 130 samples of ergot preparations tested in the Biochemical Standardisation Laboratory, Calcutta, 112 (86.15 per cent.) were found much below strength, and in 58 (44.61 per cent.) no active principles whatever could be detected. Of the samples examined, 103 were of indigenous manufacture and 27 of foreign make.

FISH-OIL RESEARCH.—The Madras Government has recently been carrying out technological researches in fish oils, and as a result of its vitamin A surveys has discovered four varieties stated to have three to nineteen times the vitamin potency of cod-liver oil. A scheme to popularise manufacture of medicinal fish oil as a cottage industry in fishing villages has been formulated at the instance of the Government.

DEATH OF WELL-KNOWN REPRESENTATIVE.—The death took place in London on December 10, 1938, of Mr. Walter White, who had represented a number of English drug-trade houses (including Burgoyne, Burbidges & Co., Ltd., Savory & Moore, Ltd., Bovril, Ltd.) since 1912. Mr. White was well known in Bombay, Calcutta, Karachi, Madras, and other centres, and as a mark of respect the chemists and druggists in Princess Street, Bombay, remained closed during one day and telegraphed a message of sympathy to his family. Mr. White was seventy-six years of age. His work in India will be continued by his son, Mr. William H. White.

Sweden

NEW GOVERNMENT LABORATORY.—A new Swedish Government Laboratory has been erected and is expected to be ready for occupation this month. Situated in Lindhagsgatan, Stockholm, it is under the supervision of Mr. Harold Nilsson (head of chemical laboratory). The laboratory analyses each of the 2,300 patent medicines of the country, and controls the prices charged, which must be related to the constituents employed, and it also approves the description of the medicine as being suitable as a remedy for the condition it is to alleviate.

United States

PERKIN MEDALLIST.—Dr. Walter S. Landis (vice-president, American Cyanamid Co.) has been awarded the Perkin medal of the American section, Society of Chemical Industry, for 1939. The award is given annually for "valuable work in applied chemistry," and has been bestowed upon Dr. Landis for his work upon cyanamid, its derivatives, fertilisers, ammo-

nium phosphate and the first commercial production of argon. The ceremony took place at the Chemists' Club, New York.

AMERICAN PHARMACEUTICAL ASSOCIATION.—The Board of Canvassers of the Association has announced the result of the postal ballot for the election of officers of the Association as follows:—President-elect, Mr. A. G. DuMez, Baltimore; first vice-president-elect, Mr. F. O. Taylor, Detroit; second vice-president-elect, Mr. F. J. Cermak, Cleveland; members-elect of the council, Messrs. H. C. Christensen, Chicago; R. P. Fischelis, Trenton; Ernest Little, Newark.

REPORT ON PHARMACY WEEK DISPLAYS.—In announcing the awards in the 1938 Pharmacy Week window-display contest, the adjudicating committee submitted the following recommendations as to the manner in which displays should be made. Every display should carry out a single theme, and should include a prominent banner or sign with a clear, brief, forceful title; for example, "The Progress of Pharmacy," "The Protection of Health," etc. Full windows are not important and frequently the message is lost by attempts to fill up space. Proprietary labels and signs should be excluded from the display. Observance of Pharmacy Week was more general than in any previous year, the committee reported, and the Pharmacy Week messages by President Roosevelt and Mr. Lascoff (president, American Pharmaceutical Association) were given wide publicity.

REVISION OF U.S.P. STANDARDS.—Owing to complications that have arisen on the importation of aloe, ephedrina, stramonium, extractum stramonii, and tinctura stramonii, it has been deemed necessary to publish immediately certain revised standards intended to be included in the second U.S.P. XI supplement, which is to be issued early in 1939, but which it has not been found possible to publish on the suggested issue date of January 1. The changes are: *Aloe*, standards for ash and moisture revised (second paragraph, lines 21 to 23, from top of p. 47 to read "Aloe yields not more than 4 per cent. of total ash, not more than 2 per cent. of acid-insoluble ash, not more than 12 per cent. of moisture, and not less than 50 per cent. of water soluble extractive, pp. 471-475"); tests for identity revised (second paragraph, lines 4 to 12 from bottom of p. 47 to read "Intimately mix in a flask or bottle about 1 gm. of finely powdered aloe with 25 c.c. of cold distilled water, shake the mixture occasionally during two hours, transfer it to a filter and wash the filter and residue with sufficient cold distilled water to make the filtrate measure 100 c.c. The colour of the filtrate, viewed in the bulb of a 100 c.c. volumetric flask, is light yellowish-brown with Socotrine Aloe and reddish-brown with Curaçao Aloe. The filtrate darkens on standing"; in second paragraph, line 6 from top of p. 48, word "deep" omitted, sentence now reading "a permanent rose colour is produced in the lower layer"); test for purity revised (lines 8 to 10 from top of p. 48 to read "Add 1 gm. of finely powdered aloe to 50 c.c. of alcohol in a flask and gently heat the mixture, avoiding loss by evaporation. Withdraw the heat and shake the mixture at intervals during one hour. Pour the liquid through a small tared filter, or a suitable tared filtering crucible, and wash the flask and filter with alcohol until the washings are colourless. Dry the residue to constant weight at 100° C. and weigh. The weight of the anhydrous residue does not exceed 10 per cent. of the weight of the aloe taken for the test (alcohol-insoluble substances)"). *Ephedrina*, official recognition is given to synthetically produced ephedrine of the optically-active variety. Definition for ephedrine on p. 144 of U.S.P. XI changed to read "An alkaloid obtained from *Ephedra equisetina* Bunge, *Ephedra sinica* Stapf and other species of *Ephedra* (Fam. *Gnetaceae*), or produced synthetically." *Stramonium*, alkaloidal requirement changed (p. 300, U.S.P. XI) from "not less than 0.30 per cent." to "not less than 0.25 per cent." *Extractum stramonii*, under extract of stramonium (p. 160, U.S.P. XI) alkaloidal requirement changed from "not less than 1.10 gm. and not more than 1.30 gm." to "not less than 0.90 gm. and not more than 1.10 gm." from each 100 gm. *Tinctura stramonii*, alkaloidal requirement (p. 407, U.S.P. XI) changed from "not less than 0.027 gm. and not more than 0.033 gm." to "not less than 0.022 gm. and not more than 0.028 gm." from each 100 c.c. The revised standards came into effect on December 1, 1938.

Legal Reports

Injuries from Chemical Vapours.—In the King's Bench Division of the High Court, London, on February 6, a settlement of an action involving the payment of £8,500 damages to two workmen was mentioned to Mr. Justice Lewis. The plaintiffs, Eric Laurence Lee and Sydney Stephen Radford, were employees of the defendants, the Leyton Manufacturing Co., Ltd., Hainault Road, Leytonstone. Mr. Cartwright Sharp, K.C., for the plaintiffs, said he did not think there was now any doubt that, owing to vapours arising from certain chemicals, very grave personal injuries had been inflicted on the plaintiffs. The point in the case was whether that was due to the negligence of the defendants. The terms of settlement had been so arranged that Lee would receive £3,500 and Radford £5,000, clear of costs. The workmen's case was that though steps were taken to protect the men from the vapours, they were insufficient. The chemicals manufactured formed a new industry in this country, and the company maintained that they now knew more about the dangers than they could have known earlier. Mr. H. J. Wallington, K.C., who appeared for the company, said they had always been anxious that no harm should come to their workmen and, before they began the manufacture, they made exhaustive inquiries in America and Germany through the Home Office. They were so satisfied with the result of those inquiries that they thought there was no danger at all. They did take steps to afford protection against the vapours. Mr. Justice Lewis, approving the settlement, said it did seem to him as if defendants had a good defence. An employer could only do what was reasonable, and they had taken the precautions in regard to known danger.

Statement of Claim Amended.—Mr. Justice Crossman, in the Chancery Division of the High Court, London, on February 7, heard a procedure summons taken out by the defendants. Pharmetics, Ltd., London, N.7, in an action brought by Macleans, Ltd., Brentford. Mr. Leonard Stone, for the defendants, said they were asking for an order that a certain sentence in the plaintiffs' statement of claim should be struck out on the ground that they had made default in delivering particulars of alleged acts of "passing-off" as ordered by the Master. In the action plaintiffs alleged "passing-off" by defendants of certain powders used for the cure of digestive disorders. Mr. Justice Crossman: Are plaintiffs the people who ask whether you have done something to-day or not? Mr. Stone: Yes. It is my friend's clients who put that impertinent question. (Laughter.) He added that the Master ordered that if the particulars asked for were not delivered within twenty-one days the sentence in question should be struck out. On December 19 plaintiffs delivered a document which purported to comply with the order. Paragraphs eight and nine of the statement of claim stated the allegations of "passing-off" made by plaintiffs. Defendants admitted in their defence that they sold stomach powders in cartons bearing the words complained of, but they said the words meant something different from powders manufactured by the plaintiff company. Some years ago a Dr. Hugh MacLean invented a prescription for stomach powders, and defendants said that in the public mind "Macleans stomach powder" meant powder made in accordance with Dr. Hugh MacLean's prescription. If there was any ambiguity it was caused by plaintiffs because they made up stomach powders and put the name Maclean on them. This could either mean that the powders were of their manufacture or that they were made in accordance with Dr. MacLean's prescription. This would be the main issue in the action, and the judge would have to decide whether in the public mind "Maclean" meant Dr. Hugh MacLean's prescription of powders made by plaintiffs. With respect to "get-up," defendants said their cartons did not resemble plaintiffs'. The sentence which defendants sought to strike out was: "Plaintiffs are not now able to give particulars of all acts of 'passing-off' by defendants, but claim to recover in respect of all such acts." If they alleged acts of "passing-off" they must particularise them. Defendants denied that they had ever threatened to market goods in such a way as to cause confusion with the goods of the plaintiffs, and said that if confusion had arisen it was due to plaintiffs manufacturing powders in accordance with the formula of Dr. MacLean and selling them under the name "Maclean brand stomach powders—Alec C. Maclean." Defendants denied the alleged "passing-off." On the issue whether defendants could call their powders

MacLean and whether their get-up resembled the plaintiffs', they took the view that they were safe, but if there suddenly came evidence from retailers to the effect that they had retailed defendants' powders as the plaintiffs', this might put a different complexion on the case. Mr. Hignett, for the plaintiffs, said the allegation was clearly that defendants had taken a wording and "get-up" which colourably resembled the plaintiffs'. The sentence objected to was only intended as one on which to found an inquiry as to damages, and he was prepared to limit it to the allegations in paragraphs eight and nine. Mr. Justice Crossman suggested that the statement of claim should be amended so that the sentence would read "Plaintiffs are not able to give further particulars of any of the acts of 'passing off' by defendants alleged in paragraphs eight and nine of the statement of claim, but claim to recover in respect of all such acts." Mr. Hignett agreed to an amendment in that form. His lordship gave plaintiffs liberty to amend the statement of claim as agreed.

Tuberculosis After Inoculation.—In the High Court, Dublin, on February 6, before Mr. Justice Conor Maguire, an action was brought by Michael O'Kenneally, Professor of Irish, Ring College, co. Waterford, and his three children, James, Nicholas, and Lawrence, suing through their father, to recover damages for injuries alleged to have been caused following anti-diphtheria injections. The action was brought against Dr. Daniel T. McCarthy, Dungarvan, and Wellcome Foundation, Ltd. (Burroughs Wellcome & Co.), Langley Court, Beckenham, Kent, and Snow Hill Buildings, London. The father claimed £5,000 damages in respect of each of the three boys, £100 damages for the death of another child, Susan, and £1,000 to cover costs of medical treatment. It was alleged that the death of the child Susan and the illness of her three brothers had been caused by a preparation purporting to be diphtheria prophylactic, manufactured by the Wellcome Foundation and administered by Dr. McCarthy as the doctor attending the College. The children were inoculated with a preparation known as "T.A.F." (toxoid anti-toxin floccules), prepared and marketed by the Wellcome Foundation. It was claimed that as the result of the inoculations the girl and her brothers contracted tubercular disease, and that as a result the girl died on April 20, 1937. The claim against Dr. McCarthy was that he had warranted the fitness of the preparation used. In his defence Dr. McCarthy denied giving any warranty, while the Wellcome Foundation denied negligence in the manufacture of the preparation used, and said that the preparation of tuberculin, and the use of tubercle bacilli were carried on in premises isolated from those in which other products were manufactured. They denied that they gave any warranty of the "T.A.F." preparation or that the children contracted tubercular disease as alleged. Opening the case for the plaintiffs, Mr. E. J. Kelly, K.C., said about 1936 Dr. O'Farrell, the Waterford County Medical Officer of Health, approached the head of Ring College with a view to getting the consent of the parents to have the children there inoculated against diphtheria. The parents of thirty-eight little boys and girls in the college agreed to this, and at the same time forty-four boys at the Friary School, Dungarvan, were also to be inoculated. Both inoculations were carried out by Dr. McCarthy. Mr. Kelly then explained how Dr. McCarthy received his supplies of "T.A.F." through the county medical officer of health and carried out the inoculations of the thirty-eight children at Ring College and the forty-four boys at the Friary School. Three separate injections were given, and in some cases a portion of the "T.A.F." left in a bottle used at Ring College was used at the Friary School, but the boys there suffered no ill-effects. In his opinion the harm was done on the third and last day of the inoculations at Ring—that was November 24, when one whole bottle of "T.A.F.", which he suggested was the guilty bottle, was used. On December 20 the children went home on holidays, but it was not very long before some of them were in the hands of the doctors. Dr. Cagney attended two of the children and found that their arms had not healed up. Examination of the ulcerous discharge on their arms showed it was caused by tubercle bacilli. The disease, it might be inferred, was caused either as the result of the preparation used or as the result of the dirty way in which the operation was performed, but there was no history of tuberculosis being conveyed by a syringe. The hearing was adjourned.

Company News

P.C. means Private Company and R.O. Registered Office

BRINLEY R. EVANS (CHEMISTS), LTD. (P.C.).—Capital £100. Objects: To acquire the business of a chemist carried on by Brinley R. Evans at 53A Noltan Street, Bridgend.

PARFUMS VICTOR, LTD. (P.C.).—Capital £100. Objects: To carry on the business of manufacturers of and dealers in perfumery, etc. Henri Bodet, 75 The Lawn, W.12, director.

HYGEX, LTD. (P.C.).—Registered in Edinburgh.—Capital £100. Objects: To carry on the business of chemists and druggists, etc. John W. L. R. Mitchell, Beechlands, Netherlee, Glasgow, S.4, director.

M. & J. STEIGER, LTD. (P.C.).—Capital £100. Objects: To carry on the business of chemists, herbalists, etc. Max Steiger (permanent), 669 Prinsengracht, Amsterdam, director. R.O.: 32 Stamford Brook Road, W.6.

C. EDWARD ISON, LTD. (P.C.).—Capital £200. Objects: To acquire the business of dispensing and photographic chemists carried on as "C. E. Ison" at 97 Long Street, Atherton and Attleborough Square, Nuneaton, Warwickshire.

MEDWAY INDUSTRIAL & DOMESTIC CHEMICALS, LTD. (P.C.).—Capital £100. Objects: To acquire the business of chemical works carried on by Wm. G. Austin-Eames as "Industrial & Domestic Chemicals Co." at 47 Wood Street, Old Brompton, Kent.

VEGETABLE HEALTH & BEAUTY PRODUCTS, LTD. (P.C.).—Capital £2,000. Objects: To carry on the business of manufacturers of and dealers in cosmetics, perfumes, etc. Thos. G. Macfie (chemist), Imperial Works, Ryland Road, N.W.5, director.

MARGETTS (CHEMISTS), LTD. (P.C.).—Capital £100. Objects: To carry on the business of manufacturing, dispensing and advising chemists, etc. Russell R. Margetts and Mrs. Doris L. Margetts, both of 179 Loughborough Road, West Bridgford, Notts, directors.

JOHNS & KELYNACK, LTD. (P.C.).—Capital £500. Objects: To carry on the business of chemists, druggists, opticians, photographers, etc. Douglas W. Johns, 22 Longcroft Road, Welwyn Garden City, director. R.O.: 11 Cole Green Lane, Welwyn Garden City.

S. H. DAVIES' PHARMACY, LTD. (P.C.).—Capital £100. Objects: To carry on the business of chemists, druggists, etc. Sidney H. Davies, 18 Maycroft Avenue, Little Thurrock, Grays, Essex, director. R.O.: 8 Crescent Parade, Uxbridge Road, Hillingdon, Middlesex.

JOHN A. PORTER, LTD. (P.C.).—Capital £100. Objects: To carry on the business of chemists, opticians, photographic dealers, drug store keepers, etc. Robert W. Brise, "Heathside," Hillcrest Road, Dartford, directors. R.O.: 9 King's Parade, Northfleet, Kent.

SILVERCROWN, LTD. (P.C.).—Capital £4,000. Objects: To carry on the business of manufacturers of and dealers in mineral and chemical substances of all kinds, etc. Erich Heymann, 29 Templars Avenue, Golders Green, N.W.11, director. R.O.: Thames House, Millbank, S.W.1.

MARTIN'S PREPARATIONS (1939), LTD. (P.C.).—Capital £2,000. Objects: To carry on the business of manufacturers and distributors of tooth pastes and pharmaceutical, cosmetic, herbal, toilet and other preparations, etc. Jean M. Freud, LL.D., 20 Maresfield Gardens, Hampstead, N.W.3, director.

UNITED PHARMACIES, LTD. (P.C.).—Capital £100. Objects: To carry on business as manufacturers of and dealers in all kinds of salts, acids, alkalis, drugs, medicines, herbs, etc. The first directors are to be appointed. Secretary: Percy C. Cleaver, Imrie House, King William Street, E.C.

J. C. BOLDOOT (ENGLAND), LTD. (P.C.).—Capital £2,000. Objects: To carry on the business of manufacturers and dealers in eau de Cologne, perfumes and essences, soaps, toilet preparations, and to acquire the trade marks "Glazurol" and "Glazudent." R.O.: 31B Stafford Way, Waddon, Croydon.

EADE'S PILLS, LTD. (P.C.).—Capital £100. Objects: To adopt an agreement with George Eade, Ltd., and to carry on the manufacture and sale of the medicines and preparations referred to in the said agreement, etc. Dudley Lewis, Rosslyn, Blackborough Road, Reigate, Surrey, director. R.O.: 232 Goswell Road, E.C.

GILBERTS CHEMISTS, LTD.—Notice has been given in "The London Gazette" that a meeting of the creditors of the above-named company has been convened for February 16, 1939, at 14-17 Holborn Viaduct, London, E.C.1.

COPELAND CHEMISTS, LTD.—Notice has been given in "The London Gazette" that the creditors of the above-named company are required, on or before March 3, 1939, to send in their names and addresses to the liquidator, Mr. P. S. Booth, 14-17, Holborn Viaduct, London, E.C.1.

COMPANIES DISSOLVED.—Notice has been given in "The London Gazette" that the names of the following companies have been struck off the register and the companies dissolved: Chemical Works (London), Ltd.; Epheta Chemical Co., Ltd.; Rodomel Beauty Products, Ltd.; Surgical Research Productions Co., Ltd.

BANKRUPTCY.—Israel Best, 1, Crownstone Court, Brixton, and 189, Stockwell Road, London, S.W., chemist.

BANKRUPTCY.—H. J. Williams, 64 Grange Road, Aveley, Purfleet, Essex, and 4 Crawford Street, Baker Street, London, W.1, chemist.

Private Arrangements

Willie Fleming, 19 Belle Vue Street, Filey, Yorkshire, chemist. The creditors met recently, when a statement of affairs was submitted showing liabilities of £1,937 12s., of which £337 12s. was due to the trade, and £1,600 to cash creditors. In addition there were fully secured creditors for £847 18s. 7d. The assets totalled £991 18s. 6d., or a deficiency of £945 13s. 6d. A deficiency account was also submitted which disclosed that as at January 10, 1936, there was an excess of liabilities over assets of £375, and between that date and November 24, 1938, there was a net profit on the trading of £544. As against that, however, the debtor's drawings amounted to £559, including building society interest £123; loan interest and income tax £69; and insurance premiums £14. For the purposes of the statement of affairs the assets had been written down by £555. It was stated that the debtor commenced trading in May 1938 with a borrowed capital of £1,100, and in addition £500 was allowed to remain of the purchase price of the business. Those loans had not been repaid. There was a possibility of the business being sold as a going concern. It was decided that a deed of assignment should be executed to Mr. R. B. Mortimer, of Barclays Bank Chambers, Scarborough, with a committee.

Arthur Guild Stocks, 6A Queen's Road, Brighton, chemist. At a meeting of the creditors held recently at the offices of the Association of Manufacturing Chemists, Ltd., 14-17 Holborn Viaduct, E.C.1, a statement of affairs was submitted showing liabilities of £550 6s. 9d., of which £375 1s. 6d. was due to the trade and the balance to the bank. The assets were estimated to realise £265, from which has to be deducted preferential claims of £80 8s. 10d., leaving net assets of £184 11s. 2d., or a deficiency of £365 15s. 7d. Debtor, it was stated, commenced trading on his own account in 1927 with a capital of £500. He sold that business in 1929 for about £400, and eventually became employed in the business at 6A Queen's Road, Brighton. On August 1, 1937, he purchased the business from his employer for £180, and agreed to take over the lease which had twelve years' unexpired at a rental of £125 per annum, plus rates. From July 1, 1937, to October 5, 1938, the turnover was £1,435. Recently he left the business under managership whilst he obtained employment elsewhere. He had no offer to make to the creditors. On October 29 last, owing to pressure by suing creditors, debtor executed a deed of assignment to Mr. Parkin S. Booth, and the creditors resolved to confirm that deed. A committee of inspection was also appointed.

National Register of Pharmacists

In view of the large number of inquiries received in respect of the National Register of Pharmacists, the Pharmaceutical Society of Great Britain has issued the following statement:—

The Register is part of the Government's scheme of national registration of man-power. It is a voluntary register. There is no penalty for refusing to complete the form which will be sent out, but there is an obligation upon everyone as a citizen to do so, even if the reply has to be "my other obligations prevent me from offering my services in any capacity." This Register, which the Pharmaceutical Society will prepare under the Ministry of Health, is complementary to the main National Register of the Ministry of Labour, and it will lead to confusion if the same person has himself registered under both. Pharmacists are particularly asked to register themselves through the Society only.

NOT A SCHEME OF SERVICE

The Society's immediate task is to compile a register of information. It is not part of the present scheme to allocate pharmacists to specific war-time duties, although that will be the purpose for which the register, when completed, will be used as circumstances require. The information asked for falls under two heads:—(1) Concerning the present occupation of the pharmacist and any obligations he has already undertaken in the event of war; (2) concerning the voluntary service he would be prepared to undertake in war, classified as: (a) full-time pharmaceutical service in the defence forces; (b) full-time civilian service in any part of the country; (c) part-time A.R.P. service in his own locality. Periodically there will be an opportunity for each pharmacist to revise the information which he supplies.

CLASSES OF VOLUNTARY SERVICE

Full-time in the defence forces.—This will be paid pharmaceutical work undertaken according to the conditions for the

time being laid down by the War Office, Admiralty or Air Ministry.

Full-time civilian service.—There will be pharmacists without family ties free to take up employment in any part of the country. It may be necessary to call upon them to serve in hospitals or pharmacies in parts of the country to which large numbers of persons have been evacuated, or to staff the dispensaries of temporary hospitals or hospital-camps, set up for the treatment of air-raid casualties. They will be paid as full-time employees by the pharmacist or the local or national authority who employs them.

Part-time A.R.P. service.—Pharmacists who are prepared to give part-time service in local A.R.P. schemes may indicate this on the form. It will be an advantage if they link up with their local A.R.P. service as soon as possible, so that at the first revision of the Register they can be noted as actually serving and not merely as prepared to serve. The Society has for some time been seeking from the Government a national scheme which will give pharmacists a set place in A.R.P. services. Until such a scheme is forthcoming pharmacists will participate in local schemes on such lines as their own branch may have been able to arrange.

DECENTRALISATION

It will be for the administering committee to decide the extent to which the control of the Register shall be decentralised. Compilation and maintenance must be centralised, but provision must also be made for some decentralisation in the event of communications breaking down, and for liaison with the Insurance Committees as through the Pharmaceutical Committees. Every member of the Society is urged to return the form which will shortly be sent to him, and members are requested to refrain at the present stage from asking the Society how they, as individuals, should offer their services.

Pharmacy in China in 1938

By John Cameron, Ph.C.

BEING resident in an occupied area in which the Post Office has a band of active censors, I must be careful in my reflections or they may never reach England. The year 1938 will long be remembered by foreign businesses in China—especially foreign pharmaceutical and chemical houses with branch offices and laboratories in this country—as possibly the worst year they have ever experienced. Most of their staffs were reduced during the year, and now that Canton has been taken the few pharmaceutical representatives I met in Hong Kong during the autumn can have little or nothing to do. During 1938 the new provisional Government was duly inaugurated in Peking (the old name of the capital, now restored by Government order). A new health administration came into being that has taken over the many functions of the previous administration. The "Wei Sheng Shu," as it is called, is controlled by a Chinese doctor, Dr. Y. W. Hou, who received his training in Japan; I had the privilege of meeting him early in the year, shortly after he assumed control, and I took the opportunity of questioning him about his method of handling the legitimate narcotic business, about what he proposed to do in the official preparation of biologicals, his plans for pharmaceutical education, control of patent medicines, etc.

Narcotics

During my long residence in the Far East narcotics have been probably the most difficult problem I have had to deal with as pharmacist of a busy hospital at which large quantities of codeine phosphate are required for the important tuberculosis clinics, and where a busy ophthalmological clinic requires plentiful supplies of cocaine solutions all the time, not to mention routine morphine requirements for the wards and operating rooms. In the early years I was appointed analyst to the Customs authorities, and once a year the commissioner in Peking would give to the college, through the American

Legation, quantities of confiscated narcotics (though never codeine phosphate). Before the Chinese National Government established the Narcotic Bureau in Nanking some five years ago, narcotic orders were placed with the Peking agents of a German manufacturing house and supplies were sent here by post. These were invariably held up by the postal authorities, and months of correspondence usually followed before we were given permission to collect the packets from the Post Office. The record delay was possibly in 1924, when we took delivery of a shipment twenty-two months after the original order had been sent. Never did a shipment reach us in less than six months. Now that the narcotic Bureau in Nanking has ceased not only to function but even to exist, the new health administration in Peking has decided that the legitimate narcotic business in the occupied area is to be handled by the local agency of a German firm which, when it receives an order from a properly registered institution, applies for official permission to issue the amount requested. Permission being granted, the narcotics are delivered to the requisitioner and more documents are signed and sealed. A shipment of narcotics received last month was delivered in original 1-oz. bottles for the first time in many years; previously they had reached us in the Nanking narcotic bureau's own bottles, with badly fitting corks usually sealed with sealing wax in which the official seal was stamped. The present prices of narcotics are indicated below:—

Drug	Cost	Per
Morphine hydrochloride ...	\$40	oz.
Cocaine hydrochloride ...	\$84	oz.
Codeine phosphate ...	\$34	oz.
Dionin ...	\$37	oz.

These prices, taken from the hospital cards, are in local Chinese dollars (rate at the time, approximately \$22 = £1). The difference in price between these figures and those in any British wholesale list represents import duty.

Biologicals

Until the National Epidemic Prevention Bureau was occupied by the invaders early in 1938 Peking possessed one of the most up-to-date sera and vaccine institutes in Asia. The N.E.P.B. was a Government institution, financed partly by funds supplied monthly from the Chinese Maritime Customs revenue. All kinds of biological products were prepared and supplied to all parts of China. When the Chinese Government moved to Nanking some years ago, a new N.E.P.B. was opened in Nanking, which took over the bulk of the sera and vaccine preparation for the Government health administration. With the fall of Nanking, the bureau was closed, the staff moving first to Changsha and more recently to Yunnanfu (Kunming), where, in September 1938, I witnessed the arrival of Dr. Tang, chief of the service, and his rabbits, guinea pigs, etc., in some half-dozen trucks. To-day, one of our main problems is to find a source of supply of the commonly used biological products such as tetanus antitoxin, T.A.B. vaccine, diphtheria antitoxin, Dick and Schick tests, that does not result in their being, when delivered here, four or five times the price of the former N.E.P.B. supplies and consequently much too expensive for our out-patients department. Because of this difficulty our own department of bacteriology, under Dr. C. E. Lim (for many years consultant bacteriologist to the N.E.P.B.), has commenced the preparation of essential biologicals for use in the college and hospital. This week (in January, 1939) I received the first batch of 5,000 c.c. of T.A.B. vaccine, put up in 10 c.c. vials, issued to us at the old N.E.P.B. cost price. The college and hospital staff to-day numbers 1,500, but the college health physician informs me that he is responsible for the health of over 6,000 people (staff members and their immediate families). As members of the staff undergo each year smallpox vaccination, T.A.B. and cholera inoculations, Dick and Schick tests, typhus inoculation (special cases only), and diphtheria and scarlet fever immunisations (if necessary), the magnitude of the problem of keeping down costs of biologicals will be appreciated.

Cholera and Typhus Inoculations

During the autumn the health authorities in Peking and Tientsin took stringent measures to prevent the outbreak of a cholera epidemic, everyone entering either city being inoculated. Professor Hans Zinsser (Harvard medical school) spent two months in Peking during the year instructing our bacteriological staff in his new method of preparing typhus vaccine by growing the cultures on agar-agar. In December, 1938, all members of the out-patient department staff were inoculated with this new vaccine. An article on the treatment is due to appear in the January issue of the "Chinese Medical Journal."

Pharmaceutical Education and Standards

The North China Pharmaceutical Society School was taken over early in 1938 by the new Health Administration, and Mr. W. H. Tu (the principal) is now an official of the Health Bureau. There are eighty students in the school at present, and during the year Mr. Tu reorganised the pharmaceutical manufacturing laboratory attached to the school, and now prepares galenicals, cosmetics, soft soap, ampoules and tablets of all kinds; these are used in the many hospitals, private clinics and retail drug stores in this area. Analysis of some of the commonly used chemicals and drugs bought on the open market during the year has shown that a great deal of adulteration goes on, and it is therefore worthy of note that Dr. Hou (the new health chief) is keenly interested in keeping purity standards high.

Proprietary Medicines

I recently returned from a 7,000-mile trip to Yunnanfu, capital city of the most westerly province of China, Yunnan. I had to travel via Hong Kong and had the privilege of spending some time in the colony in June and September. While in Hong Kong I visited all the hospitals and medical institutions, besides looking over some of the leading British pharmacies there, and was struck by the number and variety of patent

medicines stocked and presumably sold—patent medicines from all the leading countries of the world. I decided during my visit to pay special attention to prescriptions of medical friends (mostly Chinese) and if possible "check up" on the huge stocks of proprietaries I saw on the various pharmacy shelves. During this visit, had it not been for the kindness of one of my Chinese medical friends, who gave me the use of his x-ray table for three nights, I do not know where I would have slept—the place was crowded with refugees and all hotels were packed. There are more comfortable places to sleep in than x-ray rooms, but that is by the way. A former Chinese colleague in the Peking University Medical College, who has been in private practice in the colony for fifteen years, requested my help in reorganising his pharmaceutical department, and this gave me the opportunity I desired. Until I looked over his stock I thought I knew something about patent medicines, but I must confess that quite 50 per cent. of them I had never even heard of, let alone used. I questioned him about some of them, and was told he had found that his patients, mostly of the middle class, preferred the neatly wrapped proprietary to the usual private prescription; it also saved time and trouble for him to hand the patient the neatly wrapped box of pills, tablets or liquid after the consultation. He admitted that he was not sure what some of the "patents" contained, but always read the literature which came with them giving directions as to uses and dosage. He had a staff of two pharmacists and four assistants in his suite of consulting rooms (I think there were fifteen rooms—five medical men used his clinic daily). I reasoned with him about the desirability of returning to what, for lack of a better term, I called "ethical" pharmacy, and he agreed with me that it would be more profitable for his clinic and perhaps better for his patients if he were to prescribe, wherever possible, drugs and chemicals in the B.P. or B.P.C. The pharmacists in many of the private clinics in Hong Kong have too little real pharmacy to do. While in the colony I visited all the hospitals and dispensaries, both on the island (Victoria) and the mainland (Kowloon). I was impressed with the efficiency of many of the pharmacies visited, especially the latest hospital in Hong Kong, the "Queen Mary," where I spent a profitable day with the assistant superintendent, who was busy each night giving instruction in air-raid precautions—very necessary instruction in that area at present.

Visits

At Pakhoi, the most westerly port in Kwangtung province, I spent a day as guest of the Commissioner of Customs. He and his wife were keenly interested in the leper work of the China Missionary Society and in the 120-bedded hospital in the town, and I was taken by car to the finest leper colony in China, where I saw over 300 lepers housed under ideal conditions. The doctor in charge of the medical work was a refugee German Jew, thankful to have this post thousands of miles away from the land that gave him birth. Ethyl esters of chaulmoogra oil, in fairly large doses, formed the standard treatment, and I was shown cases which the doctor considered cured. In Haiphong, port of Hanoi (French Indo-China), three hours away, I saw the first Annamide pharmacists I had ever seen. It took me some time to get accustomed to their black teeth, resulting from the national custom of betel chewing. Most of the proprietaries in the pharmacies I visited were naturally of French origin. I found the University of Hanoi most interesting, especially the laboratory and lecture theatres of the faculty of pharmacy, where seventy-five Annamide students were taking their four-year pharmacy course. The military and civil hospitals were well worth a visit, the pharmaceutical department of the chief civil hospital occupying a complete building. Some of the retail pharmacies in Hanoi are comparable with the best I have seen in Paris, Berlin or London; there are at least half a dozen French pharmacies in the city, one of which, the Pharmacie Blanche, was founded in 1885. In Kunming I had the privilege of visiting all the hospitals and of seeing something of the fine work that is being done by the provincial health administration under the leadership of Dr. Yao, a P.U.M.C. graduate who has specialised in public health work. I was agreeably surprised to find a small pharmacy school attached to the new 200-bedded provincial hospital, part of which was in occupation when I was there. Kunming has become the centre of the educational life of China, and I saw thousands of students when I was there.

Two Chemists Struck Off Register

A MEETING of the Statutory Committee of the Pharmaceutical Society was held at 17 Bloomsbury Square, London, W.C.1, on February 1. Sir Ernley Blackwell presided.

First Case

The first case taken was that of Gilbert Harry Goodwin, aged 39, Spondon, Derbyshire. He pleaded guilty at the Derbyshire Assizes to the fraudulent conversion of £1,014 3s. 1½d. belonging to the Postmaster-General, and also falsifying accounts, and he was sentenced to nine months' imprisonment. Mr. A. C. Castle, on behalf of the Pharmaceutical Society, said that Goodwin carried on business as a chemist and druggist, and in 1934 he obtained the position of sub-postmaster at Spondon Post Office. On August 9, 1938, he reported to the police that his premises had been forcibly entered. His premises consisted of the post office, chemist's business, and his wife had a small stationery business. He told the police that during his absence the safe had been opened and a large quantity of stamps, postal orders and cash had been stolen by some persons who entered through a back window. He said the total value appeared to be something like £1,041 3s. The police made inquiries, and for five days Goodwin continued to tell his story of the premises being broken into. At the end of the fifth day, after being cross-questioned, Goodwin said that the premises had not been broken into and in fact that he had taken the money. At the Derbyshire Assizes he was charged with five counts, but as a fact only three were dealt with, and he pleaded guilty. So far as his character prior to these offences was concerned, nothing could be said against him. Police-constable Clarence Hall said he had been on friendly terms with Goodwin, and he had an exemplary character. He agreed that all the facts in the affected person's letter of explanation were true.

ACCUSED'S STATEMENT

Goodwin on his own behalf said he had come straight from the prison hospital, where he had been for ten weeks. Dealing with his history, he said that he was apprenticed from 1913 till 1917, when he joined the Army and was in France on his eighteenth birthday. He was demobilised in March 1919, and he then had a gratuity and pay which he had saved, amounting to about £210. He applied for a grant which was made to ex-Service men to help them qualify, and instead of getting £10 a month like others did, he was only granted £4 a month because he had saved money. As a counter to the suggestion of extravagant living, he declared that he lived on £4 a month at the Nottingham College, where he qualified in September 1921, and opened business in Spondon in November 1921. He had an overdraft of £250 from the bank, which his father guaranteed. In 1934, the sub-post office became available, and he secured it. He was paid for that on the unit system, receiving something like £535 a year, but out of that he had to pay the expenses, and also an assistant. It actually meant that he was paid a commission on the business done. The best day for his chemist's business was on pay day—Friday—but he found that his shop was crowded out by people who wanted to buy sixpenny and shilling postal orders for their football pools. His chemist's business went down, and he found that the post office business ruined his private business, and he would have been better off if he had not taken the post office. Then in 1936 he had a fire, and he found himself standing on the pavement in his night clothes watching all his possessions burn. The insurance agent had not called to collect the premiums, so the insurance company said the policy had lapsed. Following that, his father and mother died within a fortnight. It had been thought that his father was a wealthy man, but after his death it was found that this was not so. He was then called upon to pay the bank the £250 on which he started. He had never had a week's holiday in seventeen years. Goodwin told the Committee that the charges to which he pleaded guilty had nothing to do with his conduct as a pharmacist. He did wrong, and was prepared to admit it. The trouble was that after the fire he should have filed his petition in bankruptcy; but instead of that, he started taking money to pay his creditors. He had been sentenced for the crime

he had done, and was now paying the penalty. He felt that if he was to be further penalised, by having the tools of his trade taken from him, he could not carry on any more. His training had been that of a pharmacist, and he had nothing else to do. He was not a criminally minded person, although he might have fallen out with society at the moment. In 1931, he acquired a number of cottages, which were on mortgage, and when that was satisfied there was a balance of about £500 to £600, which he had handed over to the Post Office to make restitution, and they had accepted it.

NAME MAY BE RESTORED

After retiring for some time, Sir Ernley told Goodwin that they had decided that his name should be removed from the Register. He added, however, that the Committee would be prepared to consider an application for his reinstatement on the Register after July 1 next. He understood the date of his release from prison was June 30. The removal of his name should not be regarded as additional punishment, and he hoped this would be a lesson so that he would not steal from anybody again. Goodwin asked whether he could have some hope that an application for his reinstatement would be favourably considered, and the chairman replied "Yes."

Second Case

In the other case, it was stated that Maurice Alterman, aged 30, of Kendal Street, London, W., pleaded guilty at Marylebone Police Court to stealing 18s. cash from his employers, Savory & Moore, Ltd., 50 Wigmore Street, W., and also unlawfully having in his possession 290 grains of cocaine hydrochloride and 530 grains of heroin hydrochloride. On these charges he was sentenced to two months' imprisonment on each, to run concurrently.

Mr. Castle, for the Society, said that, after qualifying, Alterman obtained employment with Messrs. Savory & Moore as an assistant chemist, attached to the medical counter. The company had reason to believe that things were not quite right, and a test purchase was made amounting to 18s., which did not find its way into the till. He was charged, and, while in custody on remand, his room was searched, and the dangerous drugs were found in a wardrobe. In his letter of explanation, he stated he had no intention of dealing illegally in drugs, but that he hoped he would be able to realise money upon them to provide a specialist for his mother, who was ill at Southampton. Mr. Castle said that he was not in a position to say that the drugs were stolen from Savory & Moore, but that he was in unauthorised possession of them.

Mr. Sidney Arthur Jones, chief accountant to Savory & Moore, said that Alterman had been employed by the firm for a number of years.

On his own behalf, Alterman told the Committee he qualified in 1931 and went straight into the employment of Messrs. Savory & Moore. At the time of the offence he was receiving a salary of £5 a week. He had been in financial difficulties for two years, which reached the peak at the beginning of 1938, and he then took money which did not belong to him. In March 1938 he confessed he had robbed the firm of about £150, and offered to make restitution. The firm agreed to accept, and he had paid £100, and intended to repay the balance when he could. Prior to stealing the money, he had taken the drugs from the firm from the stock bottle, and filled three smaller bottles with them. When he got the drugs home he realised he had done wrong, and did not attempt to sell them.

COMMITTEE'S DECISION

Directing the removal of his name from the Register, Sir Ernley Blackwell told Alterman that he had a terrible lesson at the beginning of 1938, and, yet in spite of that, nine months later he committed the offence in respect of the 18s. Also, he did not disclose in the early part of 1938 that he was illegally in possession of drugs. The Committee hoped that he would be able to obtain employment as an unqualified assistant, and after a considerable period he would be able to make application to them to have his name restored to the Register.

Trade Notes

NEW SEASON'S OLIVE OIL.—Wright, Layman & Umney, Ltd., 46 Southwark Street, London, S.E.1, invite inquiries for cream olive oil, of which they hold large stocks.

SPECIAL DRENE PREPARATION.—A special Drene product for dry hair has been introduced and an attractive introductory offer has been advertised in the *C. & D.* An intensive advertising campaign is to be undertaken during the fortnight prior to February 18. Chemists are asked to display special and regular Drene products prominently on their counters and in windows. An order form appeared in our Advertisement pages, and supplies may be obtained from the usual wholesalers. The coupon may also be sent direct to Thomas Hedley & Co., Ltd., P.O. Box 88, Newcastle-on-Tyne.



NAZONE INHALER.—Nazone, Ltd., Medical Dept., Zonex Works, Talbot Road, Blackpool, have introduced an inhaler

which can be recommended for catarrh and nasal complaints generally. Special sales aids are available, and supplies are obtainable from all wholesalers or direct from the patentees and manufacturers. Further details are given elsewhere in this issue.

VACUUM FLASKS.—Inquiries are invited for reliable vacuum flasks by George Wild, 87 Aldersgate Street, London, E.C.1, sole agent in the British Isles for Hugo Schneider A.G.

CROOKES' HALIBUT-LIVER OIL.—Crookes Laboratories, Park Royal, London, N.W.10, illustrate a new showcard produced in twelve colours to assist in sales promotion of their halibut-liver oil product. Full details of attractive bonus terms are obtainable on application.

SANATOGEN TONIC WINE.—Whiteways Cyder Co., Ltd., Whimple, Devon, are sole distributors of Sanatogen tonic wine, which is a product of Genatosan, Ltd., Loughborough. This wine presents the well-known nerve food in a full-bodied wine. It is obtainable in bottles of two sizes.

CHEMISTS' FRIENDS LIST.—Wilcox, Jozeau & Co., Ltd., 74-77 White Lion Street, London, N.1, inform us that the majority of their ethical preparations and those for which they are agents are now included on the Chemists' Friends list. The products referred to include Eupnine, Ferraemia, Cachets Faivre, Genalkaloids, Coreine, Fraisse's preparations, Jocigares, Alepsal, Neurinase and Lysanthine.

NASAL INHALERS.—T. J. Smith & Nephew, Ltd., Neptune Street, Hull, inform us that they have just introduced

Betacol nasal inhalers to the trade and to the public. Betacol is attractively presented in aluminium tube. It is neither liquid nor jelly, but a vapour product which contains beta-phenyl-isopropylamine as the active ingredient. A bonus offer on opening orders of one dozen is made



and may be repeated on orders for larger quantities. The outer of one dozen inhalers illustrated herewith is convenient for display purposes on the counter or on window shelves, and a neat showcard is also obtainable.

ORGANISING DISTRIBUTION.—Mr. J. E. Cross invites inquiries from manufacturers of pharmaceutical and beauty products in connexion with the distribution of their products in England. Mr. Cross, who was formerly export manager to a well-known pharmaceutical house, has exclusively distributed in France many products well known in this country, and he is offering a service whereby representatives will visit chemists and medical practitioners on behalf of the products represented. In addition, window shows will be installed by display experts, and a special statistical department will supply full details of sales and advertising returns in each district. Further details may be obtained from Mr. J. E. Cross, Brettenham House, Lancaster Place, London, W.C.2.

NEW DIAGNOSTIC TUBERCULIN.—Burroughs Wellcome & Co., Snow Hill Buildings, London, E.C.1, have introduced Wellcome brand tuberculin purified protein derivative for diagnostic purposes. It is claimed that this substance, which may be regarded as the active principle of tuberculin, possesses the following advantages:—(1) Constancy of composition and potency; (2) Absence of non-specific substances; (3) Stability in the dry state; and (4) ease of preparation of dilutions. The product, which is prepared at The Wellcome Physiological Research Laboratories, Beckenham, Kent, is available in three strengths, each packing containing sufficient P.P.D. and solvent to prepare 1 c.c. (10 test doses) of the stated strength. The dried preparation is exceptionally stable.

SKOL HEALING ANTI-SEPTIC.—In order to prevent confusion between Skol antiseptic and sun lotion, Skol Products, Ltd., 1-3 Rochester Row, London, S.W.1, have named the former product Healex, and the new style packing is illustrated herewith. Simultaneously with this change a small size has been added to the range.



ENSIGN RETAIL LIST.—A new retail list for distribution by dealers issued by Ensign, Ltd., 88-89 High Holborn, London, W.C.1, is now ready. As the edition is limited, immediate application is advisable. We are asked to state that the booklet "Ensign Cameras for 1939" is included without charge with orders for the above list as well as the trade catalogue, to which reference has already been made (*C. & D.*, January 21, 1939, p. 60). The booklet will be overprinted with dealer's name and address.

BUSINESSES FOR SALE.—Ernest J. George & Co., Bank Chambers, 329 High Holborn, London, W.C.1, offer businesses for disposal in all parts of the country, and prospective purchasers are invited to write for further information. In addition, Messrs. George have a large number of clients wishing to purchase suitable businesses.

NEW MACLEAN PRODUCT.—Macleans, Ltd., Great West Road, Brentford, Middlesex, have introduced a new super liver salt which is described as Livaclean. This product will be extensively advertised, and full particulars have been sent to the trade.

GLUCODIN.—Glaxo Laboratories, Ltd., Greenford, Middlesex, have registered Glucodin to describe glucose-D. In a circular to the trade Messrs. Glaxo state that "Glucose-D, placed on the Chemists' Friends list in the first months of the scheme, proved to be a quick-selling, profitable line rigorously restricted to chemists. But, because it is C.F. and because outside traders want it, there have sprung up several very close imitations that are available to any retailer. The descriptive name 'Glucose-D,' introduced by us in 1931, unfortunately cannot be registered. So, unless we adopt a protected 'trade mark' name, there is a grave danger that legitimate pharmacy may be forced to share the very popular glucose business with other traders." Chemists are asked for their active co-operation to prove that they can retain the sale of a product they have helped to build up. The colour, style and wording of the original tin will be retained.

Personalities

MR. J. HOTTER, M.P.S., Holbeach, has been elected a member of the committee of the local tradesmen's association.

MR. GEOFFREY A. N. HIRST, chairman of Hirst, Brooke & Hirst, Ltd., manufacturing chemists, has been appointed a member of the National Service Committee for Leeds.

MR. T. D. C. CORDNER, who has for some time been in charge of the professional department of Anadin, Ltd., manufacturing chemists, London, W.C.1, has recently been appointed a director of the company.

MR. ALBERT T. HALL, Ph.C., who has been associated with Southall Brothers and Barclay, Ltd., manufacturing chemists, Birmingham, for thirty-eight years, was recently elected to the board of the company.

MR. L. COLNE, representative of H. Bronnley & Co., Ltd., soap and perfumery manufacturers, London, W.3, is to visit the United States of America on business. He is to sail on the "Ile de France" on February 15. His address will be Hotel McApin, Broadway at 34th Street, New York.

Deaths

DWYER.—At his residence, 166 Shelbourne Road, Ballsbridge, Dublin, on February 4, Mr. James Thomas Dwyer, M.P.S.I.,



MR. J. T. DWYER

aged sixty-one. Mr. Dwyer, who was one of the best-known Dublin chemists, qualified in 1908. Some twenty years ago he opened his own pharmacy at Ballsbridge, where he built up a fine dispensing connexion. For many years he was a valued and popular member of the Council of the Pharmaceutical Society of Ireland, and only last autumn resigned owing to ill-health, a resignation accepted with deep regret by the Council. On several occasions he acted as examiner to the Assistants' examination. With the trade body Mr. Dwyer was also intimately associated for a large number of years, and in 1929-30 was president of the Dublin and Provincial Retail Drug Association, since superseded by the Irish Drug Association. A man of quiet, retiring disposition,

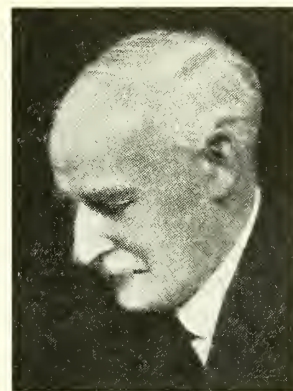
but a solid worker in the interests of his profession, Mr. Dwyer's demise is widely regretted. The interment took place on February 7 at Dean's Grange Cemetery.

HOWARD.—On February 8, Mr. David Lloyd Howard, vice chairman of Howards & Sons, Ltd., manufacturing chemists, Ilford, aged seventy-three.

LING.—At Holmwood, Church Street, Cromer, on February 1, Mr. Ralph Michael Ling, M.P.S., aged sixty-seven. Mr. Ling began business on his own at Cromer in 1904, and two years later opened a shop at North Walsham. The Cromer shop was closed during the war from 1916, and reopened in 1932. He served on the pharmaceutical services subcommittee of the Norfolk Insurance Committee for twenty years (1918-1938) as well as on various administrative committees. Before the war Mr. Ling served in the Norfolk Yeomanry. He was a member of the Shipden and ex-Service Men's and Social Clubs, Cromer, and had been chairman of the last-named. He was also keenly interested in the welfare of ex-Service men, and was at one time chairman of the Cromer branch of the British Legion. Mr. Ling, who was a member of the Baring Lodge of Freemasons, Cromer, for over thirty years, had been secretary of the lodge, and was Worshipful Master in 1915. He was a skilful billiards and snooker player, but it was at bowls that he excelled. He was secretary of the Cromer club from 1933 to 1935, and had twice been captain. Mr. Ling leaves a widow, one son and two daughters.

RAYSON.—On February 4, Mr. Henry Rayson, Ph.C., College Road, Ringwood, aged ninety-five. Mr. Rayson was formerly in business in the town and was the first president of the local Chamber of Commerce. He is survived by two daughters and two sons.

SMITHELLS.—At 68 Lissenden Mansions, London, N.W.5, Professor Arthur Smithells, C.M.G., D.Sc., F.I.C., F.R.S., aged seventy-eight. Born at Bury, Lancs, and educated at the Universities of Glasgow, Manchester, Munich and Heidelberg, Professor Smithells began his academic career at Owens College (now the Victoria University of Manchester), and from 1895 to 1923 he was Professor of Chemistry at the Yorkshire College and the University of Leeds. He was president of the Chemical Section of the British Association in 1907. During the war he was a visiting lecturer to the camps of the Northern Command and later came to London as chief chemical adviser for anti-gas training of the Home Forces, in which position he attained the rank of lieutenant-colonel.



PROFESSOR ARTHUR SMITHELLS

In 1923 he resigned his chair at Leeds and became director of the Salters' Institute of Industrial Chemistry. He occupied the presidential chair of the Institute of Chemistry from 1927 to 1930 and in 1935 delivered the Harrison Memorial Lecture before the Pharmaceutical Society, the subject being "The Teaching of Chemistry."

THOMAS.—Recently, Mr. Hugh William Thomas, M.P.S., 196 Molyneux Road, Kensington, Liverpool, aged sixty-five.

Coming Events

Monday, February 13

Paisley Chemists' Association, Y.M.C.A. Rooms, at 8 p.m. Lantern lecture.

Tuesday, February 14

London College of Pharmacy, 361 Clapham Road, S.W.9, at 7.30 p.m. Play, "The Memory Mixture." Also on February 15 and 16.

Norwich Branch, Pharmaceutical Society, Haymarket Restaurant, at 8 p.m. Supper-dance.

Wednesday, February 15

Birmingham Pharmaceutical Association, Botanical Gardens, Edgbaston, at 8 p.m. Dance.

Chelsea Polytechnic Pharmacy Students' Association, Westminster Palace Rooms, at 7.30 p.m. Annual reunion supper-dance.

Caventry Branch, National Pharmaceutical Union, Liggins' Café, Fleet Street, at 8.30 p.m. Mr. Pinchbeck, Ph.C., on "The Sulphonamides."

Lancaster and Morecambe Branch, Pharmaceutical Society, Clarendon Hotel, Morecambe, at 7.30 p.m. Annual meeting.

Medway Branch, Pharmaceutical Society, Royal Star Hotel, Maidstone, at 6.30 p.m. Annual dinner and dance.

Oxford Branch, Pharmaceutical Society, Wesley Memorial Hall, New Inn Hall Street, at 8 p.m. Professor J. H. Burn, M.D., on "Recent Advances in Medicine."

Tees Side Branch, Pharmaceutical Society, Corporation Hotel, Middlesbrough, at 8 p.m. Film show.

West Kent Branch, Pharmaceutical Society, White Hart Hotel, Bromley, at 8 p.m. Benevolent Fund gala dance.

Thursday, February 16

Birkenhead and Wirral Pharmacists' Association, Town Hall, Birkenhead. Annual ball.

West London Branch, Pharmaceutical Society, Express Hall, 18 Charing Cross Road, W.C.2, at 8 p.m. Benevolent Fund dance.

London Chemists' Golfing Society, 17 Bloomsbury Square, W.C.1, at 7 p.m. Annual meeting.

Friday, February 17

Pharmaceutical Society of Great Britain (North British Branch), 36 York Place, Edinburgh, at 8 p.m. Dr. R. J. D. Graham on "The Plant, Our Teacher"; Dr. E. G. V. Percival on "Chemical Constitution of Agar-Agar."



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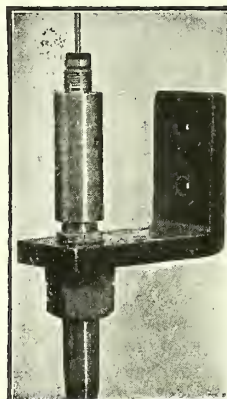
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THE CHEMIST AND DRUGGIST

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War Risks Insurance

A PERUSAL of Hansard's report of the Chancellor of the Exchequer's recent statement outlining the Government's decision on this important subject, although of a preliminary character, makes it evident that, after an exhaustive examination, it has not been found practicable to adopt a suggested scheme of premiums. To quote the Chancellor "the insuperable difficulty is that no possible basis for an actuarial calculation exists." The alternative proposals of the Government were, of necessity at this stage, revealed in somewhat indefinite terms; the general principle was, however, made clear "that such loss or injury ought not to be treated as merely the concern of those who directly suffer it, but must be regarded as falling upon the community as a whole, and consequently as constituting a proper subject for compensation from public funds." A scheme of marine insurance is to be formulated and will be available in peace time. A similar insurance scheme to apply to "essential stocks" on land is to be devised; but this will operate only in time of war, and will be available to manufacturers, importers and merchants. The question of providing a scheme for retail traders was stated to be still under consideration, but it is the intention of the Government to cover retailers who stock essential commodities. All the projected schemes of insurance will be worked through the insurance companies and Lloyd's, who will reinsure with the Government. Compensation will be assessed and made in cases of loss at sea and on "essential" properties and goods on land as they occur, but in all other instances of the casual victim of a general peril the Government has decided that "compensation cannot be made available until the total losses are known at the end of such a conflict." This briefly summarises the Government's statement relative to industry and wholesale and retail trade.

At this stage, it would be premature to offer comment; so much depends upon the interpretation of the term

"essential stocks." This will cover, it is stated, "all goods which in the opinion of the Board of Trade, are essential to the life of the community during war, including the maintenance of our export trade." At the end of September, 1938, the Board of Trade issued "Essential Commodities Reserves (Declaration) Order, 1938" (S.R. & O. No. 1110, H.M. Stationery Office, price 2d.). The schedule to this Order specified the "commodities which, in the opinion of the department, would be essential to the vital needs of the community in the event of war." This may give some guide to the interpretation to be given to the Chancellor's term "essential stocks," but it should be noted the Chancellor's statement went further than this by adding "including the maintenance of our export trade."

In industrial and commercial circles it will be regretted that the authorities have not found it possible to introduce war risks insurance of a national and compulsory character, to operate in peace time, similar to that now proposed for marine war risks. The lack of such facilities during the past two years has caused manufacturers to limit their outputs and postpone any ideas of expansion; distributors and consumers have tended to buy from hand-to-mouth and importers have maintained their stocks at a minimum. Overseas shippers have hesitated to send their usual amount of goods to this market "on consignment"; they prefer the security of other world centres, such as New York. Sellers are anxious about the double liability they have undertaken in being parties to long-period contracts on "delivered terms"; they might lose their goods and still be forced to replace them by purchasing on an inflated war-time market. The risk of war may be slight, but the liability attaching to contracts entered into in normal times for future delivery is too heavy to permit anything but the utmost caution. Such conditions have, unfortunately, had a restricting effect on business generally.

British East African Trade

THE annual report of H.M. Trade Commissioner in East Africa on the economic and commercial conditions in Kenya Colony and Protectorate, Uganda Protectorate, Tanganyika Territory, Zanzibar, some details of which we publish on p. 163 of this issue, indicates the increasing importance of these markets, both for imports and exports. The total value of the combined exports (including re-exports in 1937) was £19,190,000 (£16,600,000 in 1936 and decreasing yearly to 1931 with a total of £8,660,000). Imports, like shipments outwards, show record figures for 1937 at £16,260,000 (£11,920,000 in 1936 and £9,460,000 in 1931). The British Empire in 1937 took, in point of value, 70 per cent. of the domestic exports of Kenya and Uganda, 60.98 per cent. of those of Tanganyika Territory and 21.58 per cent. of Zanzibar. The fall from 32.72 per cent. in 1936 in the case of Zanzibar is due to the partial boycott of cloves in the Indian markets to which were exported only 14,624 cwt. of cloves in 1937, compared with 64,026 cwt. in the previous year. Imports from the British Empire into these territories represented 57.70 per cent. (U.K. 39.2 per cent.), 45.50 per cent. (U.K. 21.7 per cent.), and 57.24 per cent. (U.K., 23.4 per cent.), respectively. The comparatively poor figures of Empire and United Kingdom imports are probably due to the fact that there is no distinction of treatment of Empire and foreign goods imported into these countries. On our part, we provide the most favourable terms possible for B.E.A. produce and goods, namely, free import with duties levied on foreign competitive merchandise. Practically all textiles imported into these countries come from Japan; imports from the United Kingdom are negligible. Total imports of cotton and artificial silk piece-goods, in square yards, during 1937 were: Unbleached, 39,594,865 (Japanese, 37,275,441), bleached, 13,537,649 (Japanese, 12,496,707) and printed, 18,517,321 (Japanese, 17,072,740). So much for inter-Empire trade.

Diseases and Their Treatment

II.—Circulatory

PATIENTS suffering from disease of the heart may present no special symptoms until failure of the circulation sets in. Then, instead of the blood flowing normally onwards with the arteries it is dammed back in the veins, and the various organs of the body become congested with venous blood. This shows itself in the bronchial tubes by the onset of bronchitis and in the lungs by congestion. The patient complains of cough and shortness of breath. The kidneys are congested and the urine is diminished, the ankles and legs begin to swell and pit on pressure. The dropsy tends to spread to the abdomen and even to the chest itself. Other symptoms of heart disease are giddiness, palpitation, alterations in the pulse rate, regularity and rhythm; indigestion and sleeplessness. In treating such cases digitalis and strophanthus are the drugs usually employed. Quinidine is also sometimes prescribed. This drug is of special value in selected cases in restoring the normal rhythm, but it must be given with care and its effect strictly controlled.

The two commonest causes of heart disease are scarlet fever and rheumatic fever, while St. Vitus's dance is a not infrequent source in childhood. Diphtheria, true influenza, typhoid fever, suppurative diseases and a few other less important conditions must be included. High blood-pressure causes the heart to enlarge, while in old age fatty degeneration is extremely common.

Angina Pectoris

This is an extremely painful and often fatal condition. It consists in attacks of extremely severe pain in the region of the heart, that appears with startling suddenness. It passes into the armpit and travels down the inside of the left arm to the finger tips. The attack only lasts for one or two minutes at most, but the first attack may terminate fatally. The exact cause is unknown, but it may be due to spasm of the arteries supplying the heart muscle. The patient suddenly experiences a very severe pain over the heart radiating down the left arm. He has a sense of constriction in the chest as if the heart were held tightly in a vice. He stands still and is afraid to breathe. The face is pale and anxious, and there is a cold, clammy sweat seen on the forehead. In some rare cases the pain is complained of in the upper part of the abdomen. What can be done in such cases? It is obvious that treatment must be extremely prompt. The patient should be given a 3 or 5 minim capsule of amyl nitrite to inhale. As flatulence often precipitates an attack this may be treated. Mustard may be applied over the left side of the chest. Brandy may be given if the patient is able to swallow.

Coronary Thrombosis

This is another serious heart condition which is sometimes confused with angina pectoris. It usually occurs in elderly males, and is due to a clot forming inside one of the already thickened arteries supplying the heart muscle. The patient is suddenly seized, very often while he is at rest, with a sharp pain in the region of the heart or in the upper part of the abdomen, which may last for several hours. The patient becomes more or less breathless. The lips tend to be bluish in colour, while the face is pale and anxious, just as in angina pectoris. The patient may feel sick, or actually vomit. He has a rapid and usually irregular pulse during the attack, which may prove suddenly fatal. Some cases gradually recover, but there is always a marked tendency to failure of the circulation and life is never very much prolonged after the first attack. It is well to remember never to give amyl nitrite in such cases; only morphia will give relief. As angina pectoris and coronary thrombosis are so very apt to be mistaken one for the other, it is safer for the pharmacist to refuse to interfere in such cases, though, in the absence of medical assistance, he may safely advise brandy and the application of mustard over the heart region.

Arteriosclerosis

This term implies thickening and degenerative changes in the coats of the arteries. It may be brought about by con-

tinued high blood-pressure, and it also occurs in association with chronic inflammatory disease of the kidneys. It may also be due to chronic poisoning by such mineral poisons as lead, while alcohol and even tobacco may play a part in its production. Old age and syphilis are two other common causes which should not be overlooked. The arteries are found to be thickened, and the blood pressure is raised. The patient complains of giddiness, especially when he rises in the morning. The heart in time becomes enlarged so that heart failure will set in sooner or later with all the attendant symptoms already mentioned. The kidneys will suffer and the urine may show a low specific gravity when tested. If the vessels in the brain are involved one of them may rupture during sudden exertion or strain, and the patient will then get a cerebral hæmorrhage which may produce paralysis of one side of the face and of an arm or leg. The brain vessels are badly supported and they very readily give way when they are diseased. The outlook for a patient suffering from thickening of his arteries will largely depend on the state of his heart and his kidneys. If these are functioning well he may live for years; if they are unhealthy he will die from heart failure or kidney trouble. The life of such a patient must be carefully regulated. He must avoid chills, keep his skin active, and be careful about his diet. Potassium iodide is sometimes prescribed, but it is very often badly tolerated.

High Blood Pressure

The blood pressure varies with age, and no average figure is to be relied on as absolutely accurate. It is known that the pressure rises after strenuous exercise, after taking much alcohol, and after mental disturbances; but this rise is only temporary. A more or less permanent rise of blood pressure occurs in chronic kidney disease, arteriosclerosis, obesity and gout. The question as to whether the constant partaking of alcohol induces a permanent rise of blood-pressure may safely be answered in the negative. If it causes a rise at all it is only temporary. A permanent rise in such cases is always due to some other condition. The symptoms of high blood pressure are giddiness, headache, ringing noises in the ears, bleeding from the nose, and shortness of breath especially on exertion. There may be a sense of fullness in the head. Treatment must be directed to the cause, which should be eliminated if possible. Otherwise bodily and mental rest should be enjoyed. There must be no hurry or worry of any kind. The patient should not be encouraged to speak about his blood pressure. The less he thinks about it the better. The diet will need attention. Vegetables, fruit, eggs and fish will suit such a patient best. He must not be allowed to become constipated. (Straining at stool may cause a cerebral hæmorrhage.) Nitrites and iodides may do good in certain cases.

Phlebitis

Phlebitis is inflammation of a vein and is commonly met with in the leg. It may occur in a varicose vein or may be a complication of certain febrile diseases such as enteric fever and pneumonia. A clot forms inside the affected vein in such cases, and the risk is that a small portion of this clot may get broken off and travel up to the lung with a fatal result. The condition known as "white leg" which occurs after childbirth occasionally is really a form of phlebitis. The condition is also sometimes met with after certain operations. The earliest symptoms are pain and tenderness over the affected vein with more or less swelling locally. There is usually some degree of fever present as well. Treatment consists essentially in absolute rest on the back in bed, with the affected limb well raised on pillows. There must be no movement allowed lest a piece of the clot becomes detached. Rest should be absolutely enjoined for a period of not less than four weeks, but often a longer period is required. Pain may be relieved by applying some sedative liniment, and by the administration of some analgesic remedy. Attention must be paid to the bowels, which are best kept open by means of saline. Above all, the risk of a detached piece of clot travelling must never be forgotten, as many cases have ended fatally by the patient's getting out of bed too soon.

A Course of Photographic Studies

(Continued from THE CHEMIST AND DRUGGIST, February 4, p. 131)

V—Illuminants, Filters and Colour Sensitiveness of Emulsions

THE satisfactory rendering of a series of coloured objects, a natural scene or studio set-up, in colour or monochrome is, given correct exposure and after-treatment, entirely dependent on these three factors. The main questions to consider are: What light is falling on the objects? What proportion of that light reaches the eye or the camera? What part will then pass through the filter? And finally, how will it affect the emulsion?

The Quality of Illuminants

The sun is known to be a large body which is at a tremendously high temperature, and radiating in all directions large quantities of light of all colours and of non-visible radiations such as infra-red rays—which are appreciated as heat—and ultra-violet rays—which tan the human skin if exposed to them in the summer. This radiation falls upon one side of the earth and is called daylight. It is at its most intense at noon. Since we see by it and notice and compare the colour of objects by its aid, it is an advantage to have some idea of the composition and qualities of this illuminant. To do this mention must first be made of colours. If a beam of "white" light is passed through a glass prism it is split up into a band of colours—or spectrum—containing seven main recognisable colours: red, orange, yellow, green, blue, indigo and violet. These differ in frequency from each other, and the colour is determined by this frequency—or, what amounts to the same thing, their wave-length in air. The light normally seen forms only a small part of the great spectrum, which also includes wireless waves, infra-red, ultra-violet, x-rays and, it is believed, electron waves. These waves carry energy, and this energy of certain waves can be trapped and converted by the sensitive film into a photographic image. Clear daylight contains proportions of each of these seven colours, and actually it is found that these proportions do vary according to what time of day it is, and with the atmospheric conditions. This daylight falls on the object which reflects in various directions—usually in all directions—a certain amount of this light. This is the light that falls upon our eyes and produces the effect of seeing in our mind, or falls, by the aid of filter and lens, on the sensitive material which records the image. If the object is coloured, it absorbs one colour (frequency) more than another; it reflects only that light by which it is seen, and by which its colour is named. Strictly speaking, it would be more logical to name a colour by the light it absorbs, but convention retains the reflected light as the colour name. A red book reflects chiefly red to our eyes and grass chiefly green. These same colours are in an image on ground glass, plate or film. Artificial light is produced by heating up some body to a temperature at which it gives forth visible radiations in the same manner as the sun does. Such incandescent sources are lime heated by an oxyhydrogen flame, the gas mantle heated by a coal-gas jet, carbon or tungsten filament heated by passage of an electric current in a vacuum or inert gas, magnesium heated by its own combustion in air, and the burning wax of a candle—curiously enough one of the most complicated to understand. In practice, all these different methods produce "white" light differing somewhat in quality; in fact, it ought not to be called "white" at all—only noon unclouded sunlight is white, all other lightings being coloured to some degree. When the illumination from such sources is examined by splitting up the light with a prism it is found that the colours of normal white light are not necessarily all present, and that their proportions vary according to the source. For instance, half-watt lighting—tungsten filaments glowing in a gas-filled bulb and producing about one candle power per half-watt of electrical energy—gives off more yellow and red radiation in proportion to the blue than is present in daylight. The quantity which may actually be regarded as governing the character of the light is the colour temperature. The colour temperature defines the colour quality of the emission from an incandescent source by reference to the illumination emitted by a black body heated to a definite temperature (in degrees

absolute): thus the same colour temperature means the same quality of radiation, all other things being equal. If the voltage applied to an electric lamp is raised, the current increases (which means an increased wattage), a higher colour temperature is reached and a "whiter" light, more blue than half-watt light and consequently nearer daylight, results; this type of "over-run" lighting is the type obtained with Photoflood bulbs. Before considering the function of filters, it should be noted that sunlight itself can vary considerably from the ideal white light. Under some conditions the earth's atmosphere may tend to disperse the colours in white light, an effect noticeable when the sun is low on the horizon and its rays must pass through long distances of atmosphere before it reaches us; direct light at these times may be yellowish or reddish in cast. Due to another phenomenon, called the scattering of light, the sky itself seen by indirect sunlight is bluish in appearance; this effect is sometimes reproduced when sunlight is obscured by clouds or mist.

Filters, Their Transmission and Factors

Generally speaking, a filter is some substance, usually glass or glass-protected gelatin, dyed to allow the passage of only a certain part of the spectrum; it absorbs all other colours more or less completely, and partially absorbs some of the colours within the portion transmitted. Filter makers and laboratories issue transmission curves for the various filters. White light is passed through the filter and the emergent light submitted to analysis in a prism spectrometer. Rays of different frequencies are bent differently, and a record is obtained of the different intensities of each frequency transmitted—the simplest way is to have a graded step wedge and obtain a record on a known emulsion, or compare visually with a standard source. The incident light before it is passed through the filter is subjected to the same test. The proportion of each frequency passed by the filter is then determined and a transmission curve plotted; this is fixed and invariable for the filter dye measured. These dyes have been studied at great length, and such studies have made available a tremendous range of possible filters covering great parts of the non-visible as well as the visible spectrum. Special filters can be designed to pass the ultra-violet and none of the visible rays, or the infra-red and not the ultra-violet. With other types of electromagnetic radiation, such as x-rays, it is possible to employ different methods of filtration—such as electric or magnetic fields. With visible light the best course is obviously to use these dyes, which are coloured simply because they accomplish this sorting out of white light into two or more components, one of which they accept and absorb, and the other they reject as reflected or transmitted light. This action similarly lays the foundation for the sensitising action of dyes, discovered experimentally by Vogel in 1873 and by degrees extended enormously to all emulsion technique. It may well be asked what is the absorbing action of a dye. In simple terms, it would seem that certain frequencies of the incident light give up their energy to the particles of dye—probably to the electrons—and then cease to exist as such. Now this energy is present in the dye, and if the dye is incorporated in an emulsion, then the energy may very well appear in a photographic form; when this happens, it is said the dye sensitises the emulsion to that light. Accordingly one may expect a red dye to sensitise an emulsion to green light, since it absorbs green while reflecting or transmitting the red; similarly a green dye will at the same time sensitise an emulsion to red light, absorbing the red light and transmitting or reflecting the green. This very simple relationship between the filtering action and sensitising action should always be remembered. The original or blue-sensitive emulsion responds to ultra-violet and violet light. Their sensitivity to ultra-violet is usually about eight times that to blue light. By addition of a red dye the blue sensitivity is not diminished, but merely creates an orthochromatic material which is now sensitive to green as well as blue. Similarly, a green dye can now be added and a fully colour-responsive emulsion sensitive to blue, green and red light is obtained. Obviously

by varying the dye the sensitivity of the material can be varied. Up to 1930 the dyes in use gave only a moderate red sensitivity; now the use of improved dyes enables the red sensitivity to be increased, as in super-sensitive panchromatic material, to a level which gives much increased speed to half-watt illumination. In no case, however, does the red sensitiveness exceed the blue sensitiveness. The types of emulsion now available are: Ordinary or blue sensitive; orthochromatic, with blue and green sensitivity; and panchromatic, with sensitiveness throughout the spectrum. Two special types of panchromatic material are the so-called "orthopanchromatic," of high colour sensitivity corresponding roughly to the sensitivity of the eye; and the hyperpanchromatic or supersensitive panchromatic, which has a high total sensitivity combined with an increased sensitivity in the red, orange and yellow portions of the spectrum. To obtain accurate monochrome rendering of a subject without the use of filters we should require an emulsion that has a colour sensitivity exactly the same as the eye, namely, highest in the green and falling off towards the red and blue ends of the spectrum. Consequently, since no materials correspond accurately to the eye in sensitivity, it is obvious that filters must be used for accurate tone reproduction in monochrome.

Once the sensitivity of an emulsion to all colours is known, it is possible to predict and understand its response to different light sources. Supersensitive panchromatic material, because of its high red and yellow sensitivity, will be the best for half-watt light, itself predominantly rich in red and yellow radiation. Similarly, blue-sensitive material is best used with mercury vapour lighting, rich in blue and ultra-violet radiation. Similarly, for any emulsion filter it is possible to fix factors for filters of known transmissions. In most cases these are approximate and allow for slight variations in the illuminating light; but if the type of lighting should be radically changed, then the filter factor must also be altered. This factor tells the increase of exposure needed, on interposing the filter, to give the same density on the recorded image. In all these considerations three facts must be borne in mind. Firstly, an object cannot reflect a colour that is not incident on it; secondly, a filter cannot pass any more of a particular colour than comes to it; and lastly, an emulsion will not record any colour to which it is insensitive, even though the source produces it and the filter transmits it. These all seem obvious and unnecessary statements, but they form the basis of successful tone rendering. Considering sunlight to be the illuminant, filters themselves fall into two groups: those designed to give greater fidelity to the rendering produced by the emulsion—so-called colour filters; and contrast filters, which are employed to effect a tone separation of objects of different colours which appear equal in tone to the eye or to the emulsion. The orthochromatic groups include yellow filters of various depths, which remove the ultra-violet light and part of the blue and violet to which the panchromatic materials are still too sensitive. Also, there are yellowish green filters designed to remove part of the red radiation as well, since hypersensitive panchromatic materials are less sensitive to green than to the ends of the spectrum. The contrast group includes tri-colour sets, analysis sets and filters for many special purposes such as photomicrography. Whereas in orthochromatic filters there is gradually increasing absorption as one passes along the spectrum, in the contrast filters there is as sharp a transition as is possible between regions of absorption and transmission. As to the proper filters to be used for different purposes with the various kinds of film, the one general rule is to use the most efficient filter, that is, the filter which will give the desired result with the least increase in exposure. With orthochromatic material, since it is not sensitive to red, it is obvious that red will never appear right, whatever filter be used. The resulting tone values will resemble those seen by a colour-blind person. With panchromatic material, the selection of a filter depends on the material used and upon the source of light. A yellow filter can effect full correction with orthopanchromatic materials. With both this and the hyperpanchromatic materials, full correction filters require only a moderate increase in exposure, inasmuch as the correcting action of light filters increases as the colour-sensitivity of the material increases.

Safelights and Desensitisers

Accordingly, blue-sensitive materials can be handled by yellow or orange light quite successfully; orthochromatic

materials by deep red light; and panchromatic materials in the dark or, in cases where the sensitivity is markedly greater in the red than in the green (hyperpanchromatic), by dim green light. In all cases a practical test gives the safe exposure to the light at any given distance. The medium-speed development paper emulsions of unwashed silver chloride still retain the name "gaslight papers" because they can be handled in this weak yellowish light.

The action of desensitisation was originally found in the use of coloured developers. Carey-Lee in 1877 showed that, after first immersing a plate in ferrous oxalate developer, it was possible without risk of fog to illuminate the darkroom much more brightly than otherwise would have been possible. In 1899 attempts were made to introduce red-coloured developers, the stain from which was later destroyed in the acid fixing bath. The principle was that this red stain would filter out the blue and violet light, and so long as the emulsion was below a certain amount of developer it would be safe from fog. However, the method was uncertain, and never really successful. After the use of organic developing agents became general it was an often noted fact that when the developer had thoroughly impregnated the emulsion a considerable lowering of sensitivity took place, which could not be explained by any coloration in the bath. In 1901 Luppo Cramer carried out experiments to test this and established it for all common developers save hydroquinone. Sulphite, on the other hand, was found to reduce the desensitising effect. It was realised that the desensitising action was due to products formed by the action of air on the developers. At present the standard desensitising practice involves using various types of safranines and other dyes at very low dilutions—as low as 1:50,000. Although some dyes effect this desensitisation others cause fog. Actual developing times are changed in most cases, except when using pinacryptol green. Within recent years methods involving a standard time and temperature have largely eliminated the erstwhile necessity for examination during development.

Despite multiple coatings of emulsions some light penetrates through to the base and may be reflected back on to the emulsion from there. This results in the formation of rings or "haloes" round highlights—or halation, as it is called. To eliminate this very undesirable fault, the back of the base is coated with a dye mixture which will absorb the harmful rays reaching the base. Obviously a black backing would do for any emulsion, but it is often more convenient to use backings of different colours. Blue-sensitive emulsions can be backed with yellow dye, ortho with red, and panchromatic with green, although an alternative practice is to substitute a grey backing for the panchromatic materials.

Haze

Ultra-violet light has a powerful effect on any emulsion, and in circumstances in which the proportion is high it may become necessary or desirable—as, for example, in distant views or in colour photography on cloudless days with a clear atmosphere or at high altitudes—to filter this out. Although it is not visible to the eye it is recorded on the emulsion as an overall fog, which results often in serious loss of contrast and detail. Ordinary colour or sky filters will remove it and improve the general rendering.

When light is being scattered by the presence of numerous particles in the atmosphere it traverses, the effect is much greater for the blue rays than for the red or infra-red. Consequently, on days when even the blue rays are so scattered as to give only small visibility, the infra-red rays may be penetrating the haze or mist quite easily. The use of an infra-red emulsion and filter under these conditions will give a negative which penetrates much farther into the haze than can be seen by the visible radiation. For a precisely similar reason, yellow or yellow-red light is sometimes advised for fog driving; it is said to penetrate better and to give less throw-back to dazzle the driver.

Finally, when any device is used to estimate exposures it must be ascertained that its response to the various lights incident on it has some connexion with the sensitivity of the film. An extreme example will be a red-sensitive meter used for blue-sensitive material. The indicated exposure will have nothing to do with the correct one. In all photography, whatever its purpose, the answer to the original three questions at the beginning of this article ought to be known.
(To be continued)

Hire-Purchase Agreements

THE Hire Purchase Act which came into force recently affects not only the relationship between hirers and owners of goods let out under hire-purchase agreements, but also the relationship between hirers and third persons, such as landlords and creditors. There are, at any rate, some transactions in the course of a chemist's business, such as the sale of cameras or the purchase of apparatus, etc., which may be effected by means of a hire-purchase transaction, and accordingly attention is drawn to some of the more important alterations of the law. The Act is limited in its scope. It will apply only where the hire-purchase price or total purchase price of the goods does not exceed £100. It will apply, however, though only to a limited extent, to hire-purchase agreements entered into prior to January 1, 1939. In future, before any hire-purchase agreement will be enforceable, certain conditions must be fulfilled:—

(1) The owner must state in writing to the hirer the cash price of the goods. It will be sufficient for this purpose, however, if the hirer has inspected the goods, and if price tickets or labels were then attached to them, or if the goods have been selected from catalogues or advertisements in which the price has been stated.

(2) A note or memorandum of the agreement must be signed by the hirer personally and also by or on behalf of the owner and any other party, such as a guarantor.

(3) A copy of this note or memorandum must be given to the hirer within seven days of the making of the agreement.

Contents of Note or Memorandum

The note or memorandum itself must further comply with certain requirements. It must state: (a) the hire-purchase price (i.e., the total sum payable before the hirer can become the owner of the goods); (b) the cash price; (c) the amount of each instalment; (d) the date when each instalment is payable; and (e) a complete list of the goods. The note or memorandum must also recite the various statutory clauses which are required to be included in every agreement dealing with the right of the hirer to terminate the agreement and the restriction of the owner's right to recover the goods. These clauses are set out in the Schedule to the Act.

In future, the inclusion of certain clauses, which hitherto have been found to be prejudicial to the hirer, is prohibited.

The prohibited clauses are those:—

(1) Authorising the owner or any person acting on his behalf to enter upon the premises to retake the goods, or relieving such persons from liability for any entry.

(2) Excluding or restricting any of the statutory rights conferred on the hirer or imposing any additional liability on him.

(3) Imposing, in the event of the determination of the agreement, any greater liability on the hirer than that under the Act itself.

(4) Providing that a person acting on behalf of the owner is deemed to be the agent of the hirer.

(5) Relieving the owner from liability for any wrongful acts or defaults of any person acting on his behalf.

It will be recollected that in the case of a sale of goods, certain warranties and conditions are implied by the Sale of Goods Act, 1893. Contracts of hire-purchase are now put on the same basis in some of these respects. Thus in every hire-purchase agreement warranties will be implied that the hirer is to have and enjoy quiet possession; that the owner will have a right to sell the goods at the time when the property therein is to pass; that the goods are free from any charge or incumbrance; that the goods are of merchantable quality; that the goods are fit for any particular purpose for which they are required by the hirer.

New Privileges of the Hirer

Certain new privileges are granted to the hirer. If the hirer desires to terminate the agreement prematurely, he cannot be called upon to pay to the owner any greater sum than one-half of the purchase price, for which purpose sums already paid under the agreement will be taken into account. In such a case, however, on the other hand, the hirer will be liable to pay damages for his failure, if any, to take reasonable care of the goods. The hirer is entitled on payment of a fee of one shilling

to be supplied with a copy of the note or memorandum and with information as to the amount paid by him, the amount which has become due, and the dates of each unpaid instalment and their respective amounts, and the amount which is still payable, together with the dates and amounts of each instalment. On the other hand, the hirer is placed under a duty to give information as to the whereabouts of the goods. Where there is more than one hire-purchase agreement between the same parties, the hirer is entitled to appropriate any payment to whichever agreement or agreements he pleases, and if the appropriation is to more than one agreement, then in such amounts as he pleases. Upon payment by the hirer of one-third of the hire-purchase price, the owner can only recover possession of the goods by an action in the county court. Any recovery of the goods by any other means will entitle the hirer and any guarantor to recover all the sums they may have paid under the agreement. In such an action, the court may make an order for the specific delivery of the goods, but it may postpone the operation of the order subject to terms. But an owner who has a right to possession will not be prejudiced, for the goods will not be able to be distrained upon by the landlord or to be seized in execution by any creditor of the hirer. It is immaterial for this purpose whether or no an action to recover possession of the goods has been commenced by the hirer. The owner, moreover, will be equally protected in this respect where an order for the specific delivery of the goods has been postponed by the court. Where payment of one-third of the hire-purchase price has been made, the hirer will not lose the rights to which he will thereupon have become entitled (i.e. whereby the above restrictions on the owner's recovering possession of the goods will be imposed) by reason of any linked-on contract that might then be made between himself and the owner. Thus, for example, if a new agreement was entered into between the parties whereby the payment of the balance payable under the original agreement was spread over a longer period and was payable in smaller instalments than under the original contract, the owner would nevertheless be unable to recover possession of the goods except by an action in the county court.

Trade-Mark Applications

The figures in parentheses refer to the classes in which the marks are grouped. A list of classes and particulars as to registration are given in "The Chemist and Druggist Diary and Year-Book," 1939, p. 342.

(From "The Trade Marks Journal," January 18, 1939)

SCHEDULE IV

- "NEV-MOTH"; for moth-killing chemicals (5). By British Nev-Wet Corporation, Ltd., 18 Warwick Street, Regent Street, London, W.1. 601,185.
- "DISPASON"; for medicinal preparations for digestive disorders (5). By International Chemical Co., Ltd., The Factory, Braydon Road, London, N.16. 602,462.
- "ALBIDE"; for all goods (5). By T. J. Smith & Nephew, Ltd., Neptune Street, Hull. 601,956.
- "SPAAL"; for medicated preparations for rheumatism, etc. (5). By Matthew Farey, 81 Town Street, Armley, Leeds, 12. 601,903.
- "DAY DREAMS"; for medicated sweetmeats, pharmaceutical substances, etc. (5). By Rowntree & Co., Ltd., The Cocoa Works, Wigginton Road, York. 602,056. (Associated.)
- "STREPH"; for pharmaceutical and veterinary substances, etc. (5). By Jeyes' Sanitary Compounds Co., Ltd., 99 Regent Street, London, W.1. 602,099.
- "TRAZON"; for all goods. "INGELON"; for medicinal and pharmaceutical preparations (5). By C. H. Boehringer Sohn, Bingerstrasse 173, Nieder-Ingelheim A. Rhein, Germany. 601,807/603,159. (Associated.)
- "DESBEAU"; for menstruation appliances (5). By Co-operative Wholesale Society, Ltd., 1 Balloon Street, Manchester. 603,283. (Associated.)
- "SASKASAL"; for medicinal and pharmaceutical preparations (5). By J. A. Cochrane, 29 Hamilton Way, London, N.3. 603,281.
- "G. LTD." on shield device ("G. LTD." disclaimed); "GENATOSAN"; for all goods (33). By Genatosan, Ltd., 43 Regent Street, Loughborough, Leics. 603,008/9. (Associated.)

Alcohol in Some B.P.C. Preparations

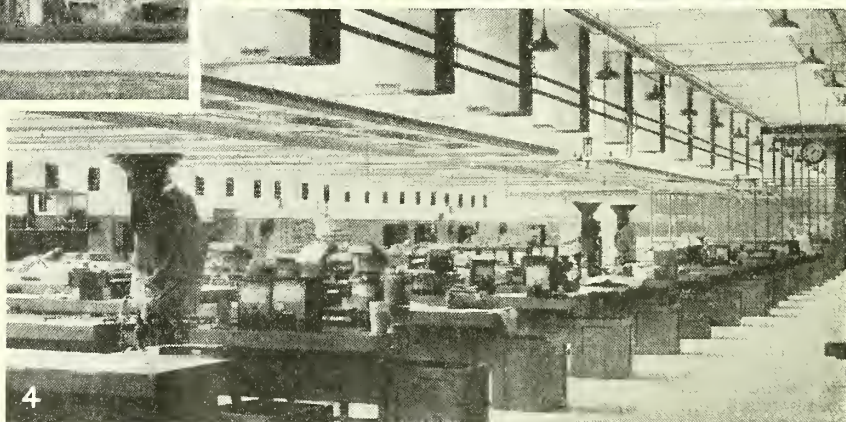
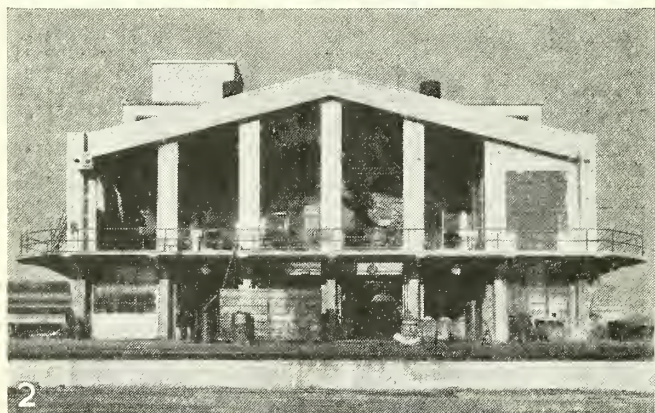
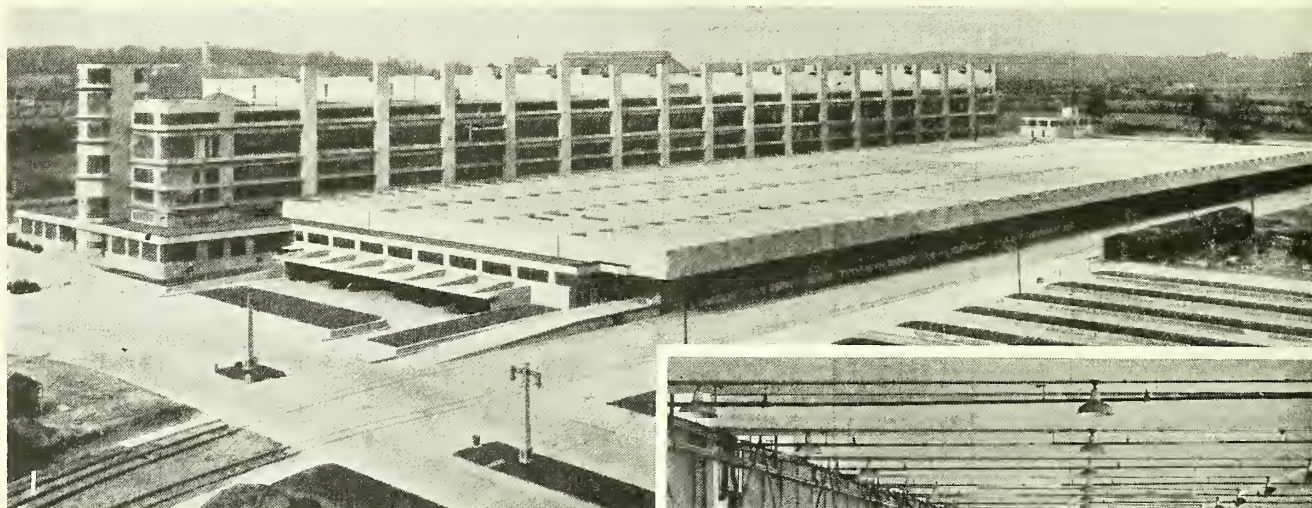
By H. D. R. Matthews, M.P.S.

THE formulary of the British Pharmaceutical Codex, 1934, includes statements of the alcohol contents, expressed as percentages by volume, of the concentrated infusions, spirits and tinctures. These figures are reproduced in the following table, with their equivalents as percentages of proof spirit, and also the alcohol contents of those preparations for which the spirit strengths can be calculated. In determining the maximum figures, the use of concentrated infusions and waters has been taken into consideration. These figures are intended as a guide only and should not be considered as standards, as no account has been taken of evaporation during manufacture of preparations, or of variations due to inaccuracies of measurement. The percentages have been calculated from the metric formulas, and the use of the imperial formulas may also introduce further variations in results. Preparations containing less than 0.01 per cent. v/v ethyl alcohol have been omitted. It should be noted that some of the above preparations may be made with industrial methylated spirits. This table was prepared in the laboratories of Potter & Clarke, Ltd.

Preparation	Percentages of ethyl alcohol v/v		Equivalent strengths expressed as percentages of proof spirit
	Stated limits for B.P.C. preparations	Calculated limits for B.P.C. preparations	
Acet. ipecac. ...	12.71-13.05	22.18-22.76	
Acet. odorat. ...	53.80-54.59	94.21-95.59	
Aq. anis. conc. ...	53.76-54.45	94.14-95.34	
Aq. aurant. flor. conc. ...	53.76-54.45	94.14-95.34	
Aq. camph. conc. ...	53.76-54.45	94.14-95.34	
Aq. cari conc. ...	53.76-54.45	94.14-95.34	
Aq. caryoph. conc. ...	53.76-54.45	94.14-95.34	
Aq. chlorof. conc. ...	53.86-54.65	94.31-95.68	
Aq. foenic. conc. ...	53.76-54.45	94.14-95.34	
Aq. mel. ...	61.18-61.79	107.17-108.24	
Aq. menth. vir. conc. ...	53.76-54.45	94.14-95.34	
Aq. menthol. ...	0.152-0.154	0.267-0.271	
Aq. piment. conc. ...	53.76-54.45	94.14-95.34	
Aq. ros. conc. ...	44.80-45.25	78.41-79.22	
Bromoformum ...	About 4	About 7	
Chlorof. bellad. ...	33.63-43.21	58.80-75.64	
Chlorof. camph. ...	0.33-0.67	0.58-1.18	
Collod. bellad. ...	32.96-42.05	57.63-73.59	
Dec. aloes co. ...	15.60-17.10	27.22-29.85	
Dec. aloes co. conc. ...	13.44-13.58	23.45-23.70	
Dec. cinchon. conc. ...	8.96-9.05	15.65-15.82	
Dec. cinchon. conc. fort. ...	22.40-22.63	39.13-39.52	
Dec. sars. co. conc. ...	20.16-20.36	35.18-35.53	
Dec. scopar. conc. ...	22.37-22.63	39.07-39.52	
Elix. æthylmorph. et terpin	22.37-22.63	39.07-39.52	
Elix. anis. ...	22.37-22.63	39.07-39.52	
Elix. aromat. ...	22.37-22.63	39.07-39.52	
Elix. bromof. ...	13.41-14.11	23.40-24.63	
Elix. cinchon. ...	63.36-64.20	110.99-112.47	
Elix. diamorph. et pini co.	22.37-22.63	39.07-39.52	
Elix. diamorph. et terpin	22.37-22.63	39.07-39.52	
Elix. diamorph. et terpin c. apomorph. ...	22.37-22.63	39.07-39.52	
Elix. ephed. hyd. ...	17.78-18.36	31.04-32.04	
Elix. euonym. et pulsat.	16.10-17.14	28.09-29.92	
Elix. guaran. ...	49.17-52.42	86.09-91.78	
Elix. hæmoglob. ...	13.44-13.58	23.45-23.70	
Elix. ipecac. ...	8.50-8.82	14.86-15.42	
Elix. ovolecithin. ...	9.00-10.13	15.73-17.63	
Elix. phenobarbiton. ...	40.32-40.73	70.56-71.27	
Elix. quinin. aminon. et cinnam. ...	39.52-40.81	69.15-71.41	
Elix. saccharin. ...	11.20-11.31	19.52-19.72	
Elix. seum. ...	12.86-14.39	22.44-25.12	
Elix. simp. ...	5.47-5.85	9.54-10.20	
Elix. valerian. ...	31.60-33.01	55.25-57.72	
Emuls. chlorof. ...	0.86-0.90	1.51-1.57	
Emuls. menth. pip. ...	2.15-2.25	3.74-3.93	
Emuls. cl. morrh. cum glycerophos. ...	0.90-0.93	1.57-1.62	

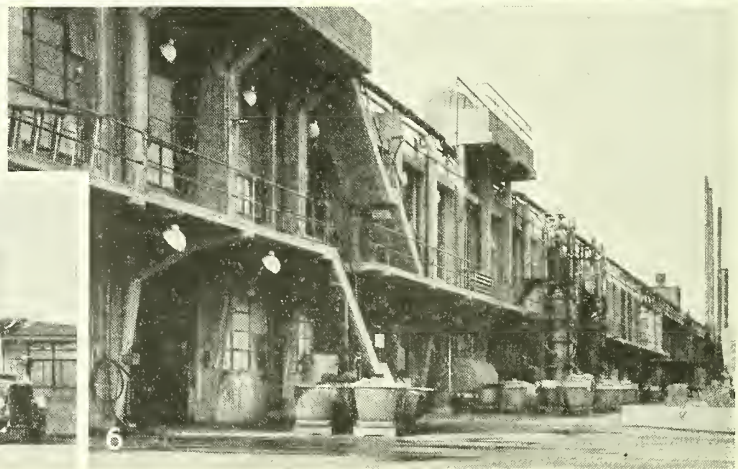
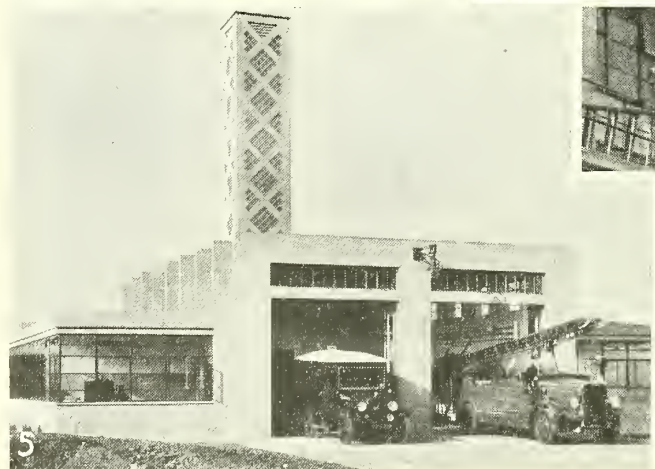
Preparation	Percentages of ethyl alcohol v/v		Equivalent strengths expressed as percentages of proof spirit
	Stated limits for B.P.C. preparations	Calculated limits for B.P.C. preparations	
Emuls. ol. morrh. cum hypophos. ...	0.90-0.93	1.57-1.62	
Emuls. ol. morrh. et creos. ...	2.05-2.13	3.57-3.72	
Emuls. ol. oliv. ...	0.88-0.91	1.54-1.57	
Enema asafœtidae ...	3.60-7.80	6.30-13.62	
Enema opii ...	0.20-2.76	0.35-4.82	
Ext. agropy. liq. ...	22.40-22.63	39.13-39.52	
Ext. belæ liq. ...	22.20-22.40	38.77-39.13	
Ext. cocæ liq. ...	60.20	105.43	
Ext. hæmatox. liq. ...	13.44-13.58	23.45-23.70	
Ext. kino eucalypt. liq. ...	8.96-9.05	15.65-15.82	
Ext. malt. liq. ...	8.96-9.05	15.65-15.82	
Ext. malt. liq. c. glycerophos. ...	8.63-8.72	15.07-15.24	
Ext. malt. liq. et medull. rub. ...	4.48-4.52	7.83-7.89	
Ext. opii liq. ...	17.92-18.10	31.28-31.59	
Garg. kino eucalypt. ...	0.56-0.57	0.98-1.00	
Glyc. atrop. ...	0.89-0.93	1.56-1.62	
Glyc. diamorph. ...	1.42-1.74	2.47-3.02	
Glyc. pancreatin. ...	0.27-0.29	0.48-0.51	
Glyc. papain. ...	0.27-0.29	0.48-0.51	
Glyc. pepsin. fort. ...	0.27-0.29	0.48-0.51	
Glyc. thymol. co. ...	2.24-2.26	3.91-3.95	
Gutt. cocain. ...	0.99-1.01	1.72-1.76	
Inf. aurant. co. conc. ...	21-24	36.67-41.92	
Inf. cascari. conc. ...	18-21	31.42-36.67	
Inf. chirat. conc. ...	19-23	33.16-40.17	
Inf. cinchon. acid. conc. ...	24-27	41.92-47.18	
Inf. cuspar. conc. ...	18-21	31.42-36.67	
Inf. kramer. conc. ...	18-21	31.42-36.67	
Inf. lupul. conc. ...	18-21	31.42-36.67	
Inf. marrub. conc. ...	18-22	31.42-38.42	
Inf. rhei conc. ...	18-21	31.42-36.67	
Inf. ros. acid. conc. ...	17-22	29.68-38.42	
Inf. scopar. conc. ...	17-22	29.68-38.42	
Inf. serpent. conc. ...	19-22	33.16-38.42	
Inf. uvæ ursi conc. ...	18-21	31.42-36.67	
Inf. valerian. conc. ...	20-23	34.90-40.17	
Inj. sod. morrh. ...	0.89-0.90	1.56-1.57	
Linct. acid. ...	0.02-0.03	0.03-0.05	
Linct. camph. co. ...	18.47-20.26	32.23-35.36	
Linct. codein. ...	0.65-0.67	1.14-1.18	
Linct. diamorph. ...	11.25-11.70	19.61-20.41	
Linct. diamorph. camph. ...	4.83-5.28	8.43-9.21	
Linct. diamorph. c. ipecac. ...	12.19-12.70	21.26-22.16	
Linct. scill. ...	0.60-0.61	1.06-1.07	
Linct. scill. co. ...	18.70-20.00	32.62-34.90	
Lin. aconit. oleos. ...	45.00-51.66	78.77-90.46	
Lin. bellad. c. chlorof. ...	52.60-61.50	92.11-107.72	
Lin. capsic. ...	65.38-67.35	114.55-118.01	
Lin. chlorof. ...	0.49-1.00	0.86-1.74	
Lin. croton. ...	39.42-39.82	68.97-69.67	
Lin. opii ...	51.00-55.50	89.30-97.21	
Liq. ammon. anisat. ...	71.68-72.40	125.60-126.88	
Liq. ammon. aromat. ...	3.36-3.39	5.87-5.92	
Liq. arsen. alk. ...	2.58-2.67	4.51-4.66	
Liq. brom. co. ...	9.81-10.58	17.13-18.46	
Liq. cantharidin. ...	88.71-89.62	155.52-157.11	
Liq. cocc. ...	17.92-18.10	31.28-31.59	
Liq. copaib. et ol. santal. ...	8.51-8.60	14.88-15.03	
Liq. euonym. et pepsin. ...	13.41-13.59	23.40-23.72	
Liq. ferr. pepton. ...	20.15-20.36	35.17-35.53	
Liq. formaldehyd. sap. ...	26.88-27.15	40.97-47.44	
Liq. hamam. ...	14.33-14.48	25.01-25.27	
Liq. morph. acet. ...	22.40-22.63	39.13-39.52	
Liq. morph. tart. ...	22.40-22.63	39.13-39.52	
Liq. pancreatin. ...	13.48-13.62	23.52-23.73	
Liq. papain. et iridin. ...	4.48-4.53	7.81-7.91	
Liq. pept. ...	8.99-9.09	15.71-15.88	
Liq. pot. phenat. co. ...	5.09-5.30	8.88-9.24	
Liq. ros. dulc. ...	0.13-0.14	0.23-0.26	
Liq. santal. co. ...	78.02-79.87	136.74-139.99	
Liq. sap. æther. ...	13.44-13.58	23.45-23.70	

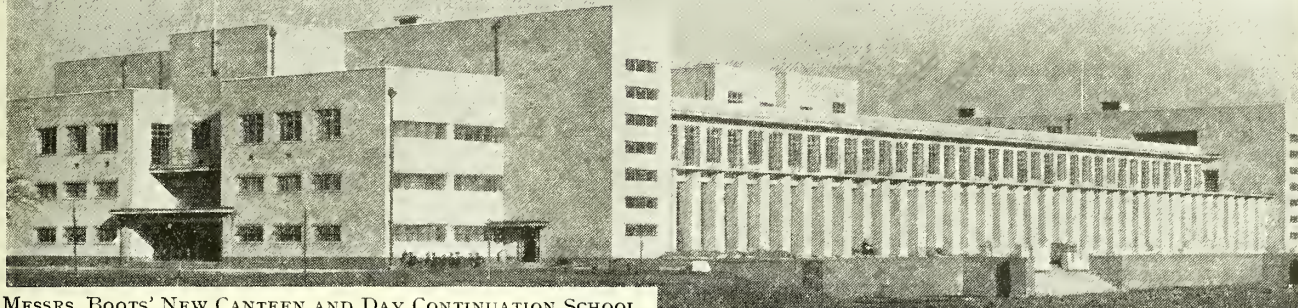
Preparation	Percentages of ethyl alcohol v/v		Equivalent strengths expressed as percentages of proof spirit	Preparation	Percentages of ethyl alcohol v/v		Equivalent strengths expressed as percentages of proof spirit
	Stated limits for B.P.C. preparations	Calculated limits for B.P.C. preparations			Stated limits for B.P.C. preparations	Calculated limits for B.P.C. preparations	
Liq. thymol. co. ...	...	25.20-25.58	44.03-44.70	Syr. pini ...	...	11.02-11.31	19.53-19.72
Liq. tinctur. ...	...	44.80-45.25	78.41-79.22	Syr. rham. ...	...	3.22-3.28	5.63-5.73
Lot. benzoin. ...	...	2.05-3.23	3.57-5.65	Syr. rhead. ...	...	4.48-4.53	7.81-7.91
Lot. cantharidin. ...	...	67.20-67.88	117.74-118.91	Tr. absinth. ...	65-69		113.88-120.88
Lot. evap. ...	...	11.20-11.32	19.53-19.74	Tr. aconit. ...	67-69		117.38-120.88
Lot. ol. amygdal. ammon.	...	59.77-60.38	104.68-105.75	Tr. aconit. fort. ...	64-67		112.12-117.38
Lot. pic. carbon. alk. ...	...	1.56-1.77	2.71-3.07	Tr. aloes ...	38-42		66.40-73.50
Lot. pic. carb. et plumb.	...	2.34-2.65	4.19-4.63	Tr. aloes co. ...	64-68		112.12-119.12
Lot. plumb. c. opio ...	...	2.05-2.30	3.57-4.02	Tr. aloes et myrrh. ...	76-79		133.18-138.45
Lot. plumb. evap. ...	...	17.92-18.10	31.28-31.59	Tr. ammon. co. ...	4-6		6.99-10.47
Lot. ros. ...	...	13.44-14.43	23.45-25.19	Tr. antiperiod. ...	53-57		92.80-99.82
Lot. rub. ...	...	1.78-1.85	3.09-3.22	Tr. apocyn. ...	55-58		96.32-101.57
Lot. staphisag. ...	...	8.96-9.05	15.65-15.82	Tr. arnic. flor. ...	43-45		75.25-78.77
Lot. sulphur. ...	...	11.20-11.76	19.53-20.51	Tr. arnic. rad. ...	66-69		115.63-120.88
Lot. trag. ...	...	3.27-3.41	5.71-5.96	Tr. baptis. ...	56-59		96.32-103.34
Mist. acid. acetylsal. co.	...	0.20-0.26	0.35-0.46	Tr. benzoin. ...	82-85		143.72-149.01
Mist. acid. phosph. ...	...	0.39-3.14	0.68-5.50	Tr. berber. ...	56-59		98.08-103.34
Mist. acid. sulph. c. opio	...	1.04-1.14	1.81-1.98	Tr. boldo. ...	56-59		98.08-103.34
Mist. æther. c. ammon. ...	...	7.90-8.60	13.80-15.03	Tr. bryon. ...	56-59		98.08-103.34
Mist. bism. co. ...	...	5.88-6.27	10.26-10.94	Tr. buchu. ...	55-59		96.32-103.34
Mist. bism. co. acid. c.	...	...	...	Tr. calend. ...	85-88		149.01-154.26
pepsin. ...	...	0.37-0.44	0.65-0.78	Tr. cannab. ...	83-87		140.21-152.52
Mist. bism. co. c. pepsin.	...	5.88-6.27	10.26-10.94	Tr. capsic. fort. ...	54-58		94.55-101.57
Mist. bism. co. c. pepsin.	...	...	...	Tr. cardam. arom. ...	84-88		147.23-154.26
et morph. ...	...	5.88-6.27	10.26-10.94	Tr. cascaril. ...	64-67		112.12-117.38
Mist. brom. co. ...	...	0.98-1.04	1.71-1.81	Tr. castor. ...	86-89		150.77-156.04
Mist. casc. co. ...	...	5.74-6.41	10.01-11.18	Tr. cerei ...	84-89		147.23-156.04
Mist. gent. acid. ...	...	0.57-2.07	1.00-3.61	Tr. chirat. ...	54-58		94.55-101.57
Mist. gent. alk. ...	...	0.57-2.07	1.00-3.61	Tr. chlorof. co. ...	62-65		108.61-113.88
Mist. ipecac. co. ...	...	0.63-0.65	1.11-1.14	Tr. chlorof. et morph. ...	12-15		20.93-26.18
Mist. lobel. et stramon. co.	...	1.97-2.25	3.43-3.93	Tr. chlorof. et morph. co.	52-56		91.05-98.08
Mist. rhei et casc. ...	...	1.63-1.90	2.83-3.31	Tr. cimicif. ...	56-59		98.08-103.34
Mist. rhei et sod. bicarb.	...	0.25-0.28	0.44-0.49	Tr. cinnam. ...	65-69		113.88-120.88
Neb. adrenal. et ephed.	...	...	...	Tr. cinnam. co. ...	55-59		96.32-103.34
oleos. ...	...	12.42-12.50	21.67-21.81	Tr. collinson. ...	55-59		96.32-103.34
Pig. aconit. co. ...	...	50.75-58.38	88.87-102.24	Tr. convallar. ...	55-58		96.32-101.57
Pig. iod. et aconit. ...	...	74.50-77.50	130.52-135.81	Tr. coto ...	86-89		150.77-156.04
Pig. menthol. et toluen.	...	59.64-60.00	104.45-105.08	Tr. cubeb. ...	83-87		140.21-152.52
Potus imperial. ...	...	0.24-0.28	0.42-0.50	Tr. ergot. ammon. ...	51-54		89.30-94.55
Sp. æther. co. ...	63-68	...	110.34-119.12	Tr. eucalypt. ...	53-58		92.80-101.57
Sp. ammon. fetid. ...	78-82	...	136.70-143.72	Tr. eunym. ...	41-44		71.75-77.02
Sp. amygdal. amar. ...	82-85	...	143.72-149.01	Tr. ferr. perchlor. ...	22-24		38.42-41.92
Sp. anis. ...	79-82	...	138.45-143.72	Tr. gall. ...	53-57		92.80-99.82
Sp. armor. co. ...	53-59	...	92.80-103.34	Tr. gelsem. ...	56-59		98.08-103.34
Sp. cinnam. ...	79-82	...	138.45-143.72	Tr. gossyp. cort. ...	54-58		94.55-101.57
Sp. colon. ...	80-83	...	140.21-145.48	Tr. guaiac. ...	74-78		129.66-136.70
Sp. junip. ...	79-82	...	138.45-143.72	Tr. guaiac. ammon. ...	65-71		113.88-124.41
Sp. lavand. ...	79-82	...	138.45-143.72	Tr. guaran. ...	54-58		94.55-101.57
Sp. lavand. co. ...	76-80	...	133.18-140.21	Tr. hamam. ...	41-44		71.75-77.02
Sp. menthol. ...	84-87	...	147.23-152.52	Tr. hydrast. ...	55-59		96.32-103.34
Sp. menthol. co. ...	48-52	...	84.02-91.05	Tr. ignat. ...	86-89		150.77-156.04
Sp. myrc. co. ...	55-58	...	96.32-101.57	Tr. jaborand. ...	41-44		71.75-77.02
Sp. myrist. ...	79-82	...	138.45-143.72	Tr. jalap. ...	65-68		113.88-119.12
Sp. puleg. ...	79-82	...	138.45-143.72	Tr. jalap. co. ...	55-58		96.32-101.57
Sp. resorcin. ...	84-87	...	147.23-152.52	Tr. kino ...	44-48		77.02-84.02
Sp. rosmarin. ...	79-82	...	138.45-143.72	Tr. kino eucalypt. ...	34-38		59.45-66.49
Sp. sap. ...	28-31	...	48.91-54.20	Tr. kole ...	56-59		96.32-103.34
Sp. sap. kalin. ...	28-31	...	48.91-54.20	Tr. lavand. co. ...	86-89		150.77-156.04
Succ. allii ...	...	17.92-18.10	31.28-31.59	Tr. lobel. simp. ...	55-59		96.32-103.34
Succ. conii ...	...	22.40-22.63	39.13-39.52	Tr. lupul. ...	55-59		96.32-103.34
Succ. hyoscy. ...	...	22.40-22.63	39.13-39.52	Tr. lycepod. ...	85-89		149.01-156.04
Succ. scopar. ...	...	22.40-22.63	39.13-39.52	Tr. myrrh. co. ...	61-65		106.84-113.88
Succ. tarax. ...	...	22.40-22.63	39.13-39.52	Tr. myrrh. et borac. ...	76-80		133.18-140.21
Syr. anis. ...	...	6.72-6.80	11.72-11.81	Tr. opii ammon. ...	63-68		110.34-119.12
Syr. apomorph. ...	...	4.03-4.07	7.04-7.11	Tr. opii croc. ...	15-17		26.18-29.68
Syr. bromof. co. ...	...	5.29-5.36	9.23-9.35	Tr. pers. ...	28-31		48.91-54.20
Syr. camph. co. ...	...	1.47-1.58	2.55-2.75	Tr. podoph. ...	85-88		149.01-154.26
Syr. casc. aromat. ...	...	20.18-22.98	35.22-40.14	Tr. podoph. ammon. ...	63-68		110.34-119.12
Syr. creosot. co. ...	...	7.00-7.08	12.21-12.35	Tr. prun. serot. ...	45-50		78.77-87.55
Syr. fic. co. ...	...	4.55-5.11	7.96-8.92	Tr. pulsat. ...	55-58		96.32-101.57
Syr. glycerophos. co. ...	...	0.37-0.38	0.65-0.68	Tr. pyreth. ...	65-69		113.88-120.88
Syr. glycerophos. co. c.	...	...	...	Tr. pyreth. flor. ...	55-58		96.32-101.57
medull. rub. ...	...	0.18-0.19	0.32-0.33	Tr. quinin. ...	72-76		126.16-133.18
Syr. glycerophos. et pepsin.	...	...	...	Tr. senn. co. ...	35-39		61.20-68.23
co. ...	...	2.68-2.78	4.68-4.85	Tr. serpent. ...	56-59		96.32-103.34
Syr. glycerophos. flav. ...	...	0.37-0.38	0.65-0.68	Tr. sumb. ...	64-67		112.12-117.38
Syr. ipecac. ...	...	6.35-6.53	11.08-11.38	Tr. valerian. simp. ...	55-58		96.32-101.57
Syr. menth. pip. ...	...	6.50-7.00	11.33-12.21	Tr. verat. ...	66-69		115.63-120.88
Syr. mori ...	...	5.60-5.66	9.77-9.87	Vin. aurant. ...	12-16		20.93-27.92
Syr. pic. liq. ...	...	4.70-4.75	8.20-8.28	Vin. xeric. ...	Not less than 16		Not less than 27.92



Developments At Nottingham

1. Boots Ltd. new dyes building.
2. Aspirin plant, chemical process building.
3. Goods dispatch dock.
4. Section of packing hall.
5. Fire and ambulance station.
6. Outdoor section of bismuth salts plant.





MESSRS. BOOTS' NEW CANTEEN AND DAY CONTINUATION SCHOOL

Boots' Factory Extensions at Beeston

AN important stage in the ambitious programme of expansion embarked upon by Boots Pure Drug Co., Ltd., in 1927 has been reached by the recent bringing into regular operation of a new "drys" building, two chemical process buildings, a new canteen, and a fire station. The new extensions, which have recently been inspected by a representative of *THE CHEMIST AND DRUGGIST*, are situated at Beeston, about four miles from Nottingham, and the site comprises about 275 acres, having adequate transport facilities for both road and rail. Between 2,500 and 3,000 persons are employed at the Beeston factories, and a five-day week is in force throughout. Production is under the direction of Mr. B. A. Bull, and the drys building is under the supervision of Mr. Nutter Smith. Some idea of the magnitude of the buildings can be gained from the illustrations opposite and at the top of this page.

New Drys Factory

This building, which has a length of 660 ft. and a width of 400 ft., and is constructed throughout in reinforced concrete, presents several striking features of engineering, one of which is the absence of pillars or supporting columns on the single storey floor area. The ends of the single storey roofs and the multi storey floors are suspended on the cantilever principle from the roof beams so that the load is finally transferred to the multi storey columns. The manufacturing sections are accommodated in the multi-storey building, where the raw materials on the third floor feed by gravity the plant on the second and first floors. The manufactured products in many cases are delivered by hoppers and chutes to meet the packing materials which converge at the head of the packing tables provided with conveyor belts, and situated on the ground floor. The warehouse for finished goods is situated at the finishing end of the packing tables and adjacent to the despatch dock situated on the South side. For the comfort of the workers, maple blocks are used for the floor of the packing hall. All internal services such as electric power, electric light, gas, compressed air, vacuum, steam, etc., are supplied from the firm's own power house. To effect an efficient system of ventilation conditioned air, freed from dust, and heated in winter, is introduced at roof level, into the ground floor area. Dust-laden air is extracted through 17 vertical shafts constructed on the side of the building, and operated by fan units. The heating of the building is carried out by the low pressure hot water system. The imposing entrance hall of the drys building has such features as concealed lighting in the walls and columns and strip panel lighting from the stepped suspended ceiling.

All raw materials are handled in the drys building and stored on the third floor of the building for issue to the manufacturing sections situated on the lower floors. No less than four separate air-conditioning plants have been installed for use in the preparation of medicated confectionery, effervescent tablets, etc., and for the treatment and cold storage of certain herbs. Thermostatically controlled drying rooms are provided throughout the manufacturing

sections, and stainless steel pans and utensils are in general use. The drug grinding plant is capable of grinding two tons of material per day, and a separate building apart from the main factory has been equipped with high speed disintegrators for the rapid grinding of certain materials such as derris root, liquorice, etc. Special rooms are set aside for the handling of obnoxious or odorous materials, such as cleaning powder, sulphur, toilet powders and coloured products. Machinery can be seen in operation in this building capable of turning out large quantities of the firm's products, e.g. aspirin tablets at the rate of a million tablets per day; pills at 200,000 per day; medicated boiled sweets at 700,000 per day; pastilles at 2,000 lbs. per day. In the veterinary and agricultural section, machinery capable of handling seven tons of iodized mineral salts per day can be seen in operation. The packing hall, which runs the whole length of the building (over 600 feet), and is 72 feet wide, accommodates fifty-five packing tables each 50 feet long and provided with conveyor belts. In some cases the materials to be packed are manufactured on the floors immediately above and are conveyed direct to the packing table through chutes. The automatic equipment for filling cartons of Epsom salts and Glauber salts is particularly interesting, the crystals being fed through hoppers from the floor above. The machine makes up the carton with liner inside, fills and seals the packages at the rate of sixty cartons per minute. At another table, as much as twenty tons per day of cattle Epsom salts can be filled.

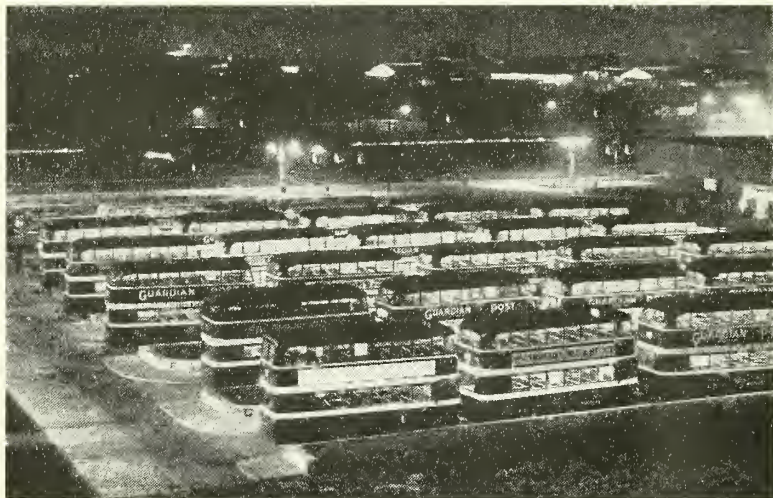
Branch orders are assembled on wheeled trolleys, checked, packed, placed on a conveyor at floor level and are conveyed without further handling to the despatch department. The conveyor is a travelling band which covers a total distance of 1,150 feet, i.e., almost twice the length of the building, first through the case packing section and then back along the loading dock. An automatic weighing platform is included in a section of the conveyor so that cases can be weighed and consigned en route. As the cases pass over the weighing machine, the weights recorded on the dial together with other details for consignment are called over through a microphone to the adjoining office, where they are directly recorded on a registering machine. The machine also adds up the total tonnage that has been handled during the day and any dissection of the total that may be required. Each branch has a fixed day at regular intervals on which they receive supplies, thus obviating the necessity for carrying excessive stocks. In addition to the main analytical laboratory in the "wets" building, there is a section in the drys building for controlling work in the process stage.

Chemical Process Buildings

So that production can be centralised at Beeston, chemical process buildings providing accommodation for the manufacture of aspirin, potassium permanganate, salts of quinine, bismuth, magnesium, etc., and the firm's horticultural specialities, have been built and brought into operation. There are two chemical buildings, each 264 by 72 feet, constructed in reinforced

concrete, and each having external canopies which extend the full length of the buildings on each side, giving protection to processes carried out in the open air. Flameproof electric motors and fittings are used throughout and as an extra precaution against fire risks in special cases where inflammable solvents are used, the whole of the electrical equipment including both lights and switches has been installed under the canopies outside the building.

Apart from the complete installation of automatic sprinklers throughout the factories a fire station has recently been erected in the factory grounds. It houses a fire engine, the usual mobile appliances and other fire-fighting equipment, together with the latest A.R.P. requisites, recreation room and store rooms. In cases of emergency the factories can be vacated in less than five minutes. A first-aid station and rest rooms are situated in the drys building, and immediate attention is given by a staff of nurses, under the supervision of the firm's medical officer, to any casualty or any signs of illness.



READY FOR THE GREAT EXODUS AT THE FACTORY'S OWN BUS STATION

In addition to the factories already referred to, Messrs. Boots have provided special amenities for their employees, of which there are nearly 3,000 engaged at the Beeston Works. These include cycle sheds, parking places for motorists and service buses, and a large canteen. Six concrete sheds capable of accommodating 700 cycles have been erected near the factory, which have been specially constructed so that in an emergency they can be utilised as splinter-proof air-raid shelters. A special bus park consisting of six one-way avenues has been laid out between the wets and drys factories, and arrangements have been made for as many as thirty-six double-decker motor buses to transport Boots' employees between the Beeston works and their homes in the outlying parts of Nottingham each morning and evening.

The New Canteen

The canteen, which was opened late in 1938, is so situated that it will occupy a central position when the site is completely developed, and a recreation area of about forty acres is being developed around it. It consists of a two-storey building, 400 ft. long by 160 ft. wide, comprising kitchen and main canteen on the ground floor and service canteen and recreation rooms above. There is a three-storey facade at either end, housing in one the entrance and crush halls, bathrooms and reception rooms, and in the other end the day continuation school. The main canteen is equipped with french windows stretching from floor to ceiling, which open on to a terrace running the full length of the building, where lunch may be taken in the summer. The kitchen, which is 100 by 60 ft. and is fitted throughout with stainless steel, juts out from the north wall into the centre of the main canteen, and service is by means of hatch counters fitted with hot-plates, which run round the three sides of the kitchen. Food is served on the cafeteria principle, and there is seating accommodation for 2,000 people, and lunch, at very economical rates, can be

served to everybody within ten to fifteen minutes. Over the cafeteria is the service canteen, also with french windows leading on to a balcony. There are sun lounges for men and women on either side of the service canteen also leading on to the balcony, and on one side of the upper floor are a library, reading room, and games room. The building is fitted with loud-speakers and broadcast programmes or gramophone records can be relayed to canteens and rest rooms and also to the school. Bathrooms are available in the building for both men and women. Special ventilation has been installed. The air is washed and heated and distributed through ducts into the various rooms, and extract fans draw out the used air. In summer time the washed air can be circulated as a cooling medium. The floors throughout the canteen and recreation rooms are oak parquetry.

Day Continuation School

The object of this institution is to turn out healthy and well integrated men and women able usefully to employ their leisure time and finally to become good home builders and citizens. In all, there are 800 pupils, composed of boys and girls mainly fourteen to sixteen years of age. Selected pupils are allowed to continue until seventeen years of age as a reward for good work. The curriculum includes:—Girls, English, needlework, home training, hygiene, physiology and physical training; boys, English, mathematics, science, art and physical training. The ground floor includes a fully equipped gymnasium with dressing-rooms and shower baths for boys and girls, a gymnasium store and changing rooms for instructor and instructress, a school store, a school hall and cloakrooms. On the mezzanine floor are lavatories and bathrooms, including hip baths. On the first floor there are four classrooms, a science laboratory and art rooms, a domestic science room and a needlework room. The pupils are divided into ten sets, each set attending one half-day each week without loss of wages. The school is inspected by the education authority for efficiency and the city education committee controls the school and provides the trained staff, books and stationery. The company provides the furniture and premises, and is responsible for heating, lighting, decoration and rates.

New Books

Skinner, Herbert, Ph.C., compiled under the direction of the Medical Committee. *Pharmacopœia of the Royal Northern Group of Hospitals*. 5½×4¾. Pp. 39. [This is the revised edition of the *Pharmacopœia* of the Royal Northern group of hospitals, the previous revision appearing in 1930. This *pharmacopœia*, which is intended for internal use in the hospital, has been thoroughly revised, and there are numerous new formulas added to the various sections and also a number of deletions.]

The Calendar of the Pharmaceutical Society of Great Britain, 1938-1939. 8½ in. by 5½ in. Pp. 493. 5s. The Society, 16 and 17 Bloomsbury Square, London, W.C.1. [Contains forty more pages than the Society's Calendar for 1937-38. Special contributions include notes on the British *Pharmacopœia* and recent work on pharmaceuticals, pharmacology, pharmaceutical chemistry and pharmacognosy. An art inset illustrating an architect's drawing of the Society's new house in Brunswick Square faces the title page.]

Illingworth, R. E., Ph.D., B.Sc. *Chemical Analysis for Medical Students, Qualitative and Volumetric*. 7¾×5. Pp. 152. 5s. E. & S. Livingstone, 16-17 Teviot Place, Edinburgh. [This new textbook on practical chemistry is specially designed to meet the needs of the medical student who normally devotes relatively little time to the study of chemistry. The subject matter selected has been determined largely by the habits of the Edinburgh medical schools, but the book is recommended for use in medical schools elsewhere. Tables for analysis have been devised for identification of single substances only.]

Trade with British East Africa

THE annual report of the Department of Overseas Trade for the year ended July 1938 for British East Africa covers Kenya Colony and Protectorate, Uganda Protectorate, Tanganyika Territory and Zanzibar. It is compiled by Mr. A. E. Pollard, H.M. Trade Commissioner in East Africa (Stationery Office, 1s. 6d. net). The following details are extracted from the report. Total imports and exports, with United Kingdom figures, were:—

	Imports		Exports	
	1936	1937	1936	1937
	£'000	£'000	£'000	£'000
Kenya and Uganda ...	7,377	10,832	10,546	12,153
From and to U.K. ...	2,832	4,462	2,501	2,824
Tanganyika Territory ...	3,682	4,201	5,022	6,170
From and to U.K. ...	1,238	1,229	1,456	1,493
Zanzibar ...	871	1,229	1,037	874
From and to U.K. ...	188	288	45	70

Total values of chemicals, drugs, dyes and colours imported to all destinations were:—

	1936	1937
Total ...	£271,203	£338,743
From United Kingdom ...	184,169	219,068
From Germany ...	32,570	41,504
From U.S.A. ...	13,507	17,018

The position of the United Kingdom has been well maintained, German competition again being most in evidence in medicinal preparations.

Disinfectants and Insecticides

	1936	1937
Total ...	£58,208	£69,851
From United Kingdom ...	40,247	46,860
From Belgium ...	5,248	8,599
From Germany ...	6,044	4,681
From U.S.A. ...	4,487	3,740

Among the principal competitors of the United Kingdom, Belgium alone secured an increased share of this trade last year. More than half the total value of imports in 1937 represented purchases of insecticides for Kenya and Uganda; of these, the United Kingdom supplied 10,629 cwt., valued at £26,397. Cattle and sheep dipping preparations, mainly for use in Kenya, were imported from the United Kingdom to the value of £6,357 out of a total importation valued at £6,395.

Drugs, Medicines and Medicinal Preparations

	1936	1937
Total ...	£96,118	£118,398
From United Kingdom ...	60,174	65,756
From Germany ...	17,735	27,390
From U.S.A. ...	6,587	7,515

Increased German participation was a feature of this trade in 1937. Imports from Germany into Kenya and Uganda rose from £5,847 in 1936 to £13,985 in the past year. In Tanganyika Territory the relative positions of the United Kingdom and Germany underwent only slight change in favour of Germany, the respective figures in 1937 being £20,908 and £12,979.

Soap (Toilet)

	1936	1937
Total ...	£16,009	£22,549
From United Kingdom ...	8,657	9,509
From Germany ...	610	479
From Holland ...	62	135
From Japan ...	5,269	9,191

Japan has enjoyed most of the benefit of increased imports in the past year. On a weight basis (Tanganyika Territory excluded) Japan supplied 3,878 cwt., compared with 1,339 cwt.

CLOVES AND CLOVE OIL.—The production and export of cloves remains the principal industry of the Protectorate of Zanzibar. As forecast, the 1937-38 crop attained record proportions, but exports were adversely affected by the boycott in India, and amounted for the year to 121,128 cwt. only, compared with 205,687 cwt. in 1936. The crop prospects for the 1938-39 season are very poor. Exports of locally distilled clove oil amounted to 95,269 lb., valued at £11,821, compared with 62,389 lb., valued at £9,359, in 1936. Exports of the oil continue to increase, and for the first half of the year (1938) reached a figure of about 70,000 lb.

PYRETHRUM.—Of all East African produce, pyrethrum has found the most profitable market during the period under review. From £85 per ton for Kenya flowers offered in London at the end of June 1937 (compared with £42 per ton in June 1936) the price has steadily risen and, at the moment of writing, has reached £140. Exports from Kenya in 1937 amounted to 19,413 cwt., valued at £59,815, compared with 20,798 cwt., valued at £47,905, in 1936. This plant is now being cultivated commercially in the highlands of Tanganyika Territory, but there is no export trade yet.

The quantity of "oils, essential and perfumed," exported from Kenya Colony in 1936 was 24,837 lb. (to U.K. 14,135 lb. and to U.S.A. 9,301 lb.) and 36,008 lb. in 1937 (to U.K. 20,748 lb. and to U.S.A. 10,830 lb.). No values are given.

Indian Chemical Trade

DURING the six months ended September 1938 the value of chemicals of all descriptions (excluding manures and medicines) totalled Rs. 1,31 lakhs, compared with Rs. 1,54 lakhs in the corresponding period of 1937.

Drugs and Medicines

In view of the general recession in the trade of the country, the imports of drugs and medicines for the six months were relatively well maintained, the aggregate falling only from Rs. 1,05 lakhs to Rs. 1,00 lakhs in value. In proprietary and patent medicines imports fell from Rs. 34.3 lakhs to Rs. 27.5 lakhs. Arrivals from the United Kingdom dropped from Rs. 15 lakhs to Rs. 12 lakhs, those from Germany from Rs. 9 lakhs to Rs. 6 lakhs, the U.S.A. from Rs. 6.4 lakhs to Rs. 6.07 lakhs. Imports of quinine salts improved from Rs. 10.5 lakhs to Rs. 12.7 lakhs. Imports from the United Kingdom rose from Rs. 3.29 lakhs to Rs. 3.37 lakhs, those from Germany from Rs. 3.66 lakhs to Rs. 7.02 lakhs, while arrivals from Java fell from Rs. 0.95 lakh to Rs. 0.41 lakh. Imports of camphor dropped from Rs. 9.72 lakhs to Rs. 6.65 lakhs, mainly due to a fall in the imports from Germany from Rs. 3.3 lakhs to Rs. 1.7 lakhs. Arrivals from Japan receded from Rs. 4.8 lakhs to Rs. 4.2 lakhs.

Soap

The continuous decline in the imports of soap due to the establishment by United Kingdom manufacturers and Indian companies of works in the country is again to be recorded, total arrivals falling from 22,099 cwts (Rs. 12.7 lakhs) to 17,033 cwts. (Rs. 11.2 lakhs). The share of the United Kingdom dropped from Rs. 8.5 lakhs to Rs. 7.78 lakhs, while that of unspecified countries fell from Rs. 4.2 lakhs to Rs. 3.4 lakhs. During the period under review, the imports of household and laundry soap fell from 4,948 cwts. (Rs. 0.94 lakh) to 3,047 cwts. (Rs. 0.65 lakh). Imports of toilet soap also fell from 14,576 cwts. (Rs. 11 lakhs) to 12,082 cwts. (Rs. 10 lakhs).

U.S. PHARMACY.—No. 14 in a series of "Guidance Leaflets" published by the United States Department of the Interior for the benefit of students, parents, etc., was entitled "Pharmacy." This was recently reprinted in the form of a booklet by the American Pharmaceutical Association. It consists of 12½ pp. and deals with qualifications, training, opportunities and rewards, etc.

Trade Report

Where possible scales of prices of chemicals are given for bulk down to small quantities. Prices recorded for crude drugs, essential and fixed oils and coal tar products are for fair sized wholesale quantities. Qualities of chemicals, drugs, essential and fixed oils, etc., vary, and selected brands or grades would be at higher values

28 Essex Street, W.C.2, February 9

WITH THE BETTER TONE in the markets the volume of business being transacted in most markets shows a little improvement. The demand from the home trade continues quite fair, with more confidence shown. Export trade, however, remains the poor feature. During the past few weeks there have been no lack of offers to purchase from the Middle and Eastern European countries, but in most instances the foreign buyer reported he would be unable to pay for the goods on the usual terms, due to currency restrictions. Goods taken in exchange, on the barter system, have tended to depress markets here, and the outcome of such experiments have been none too satisfactory. In the PHARMACEUTICAL CHEMICALS markets a further sharp reduction in the Convention prices for TERPINEOL is noted. The further advance recorded this week in the price of metal will make it difficult for makers of MERCURIALS to continue selling at the old rates.

Crude Drugs

General trade has been moving on fair lines and conditions are steady in most markets. A good business in the forward market for new crop AGAR is reported. The source reports that owing to lack of labour the prospects of the coming crop of Curaçao ALOES is very poor as regards quantity collected. Shippers report they are not in a position to quote new crop BUTCHU, which is unusual at this time of the year. A steady spot sale of CASCARA SAGRADA recorded. Rather more interest in DERRIS ROOT. The spot position of ERGOT is quite steady. Sudan GUM ACACIA continues steady. HYDRASTIS has been quite neglected of late. More business in Matto Grosso IPECACUANHA and the market is steadier. High test JALAP ROOT is short on spot and the source seems to have little or nothing of this quality to offer. Japanese MENTHOL has had a quiet week; the Chinese product continues to attract attention. Shipment and spot quotations for Spanish-Italian MERCURY have again been advanced. PEPPERS show a fractional loss on the week. Remaining stocks of RHUBARB are firmly held on spot. New crop Alexandrian hand-picked SENNA PODS are still awaited in London; supplies are expected shortly. Para TONKA BEANS are cheaper.

Essential Oils

Business in these products is reported as being rather better, but some lines remain dull and at cheap prices. Expressed ALMOND in bulk quantity is quoted at keen figures. ANISE (STAR) is barely steady and in quiet demand on spot. All bulk supplies of Japanese CAMPHOR OIL reported cleared; no shipment offers. A better business, mostly in small lots, in CARAWAY. CASSIA is very cheap on spot compared with the strong shipment market, but the call for this product remains slow. Java CITRONELLA is reported steadier for shipment, but is still at very low figures. Shipment market for Australian EUCALYPTUS firm, with cheap re-sellers on spot. Bourbon GERANIUM is steadier forward. Spot values for Ho (SHIT) are firmer. More business done in new crop hand-pressed Sicilian LEMON, and the source reports steadier conditions. West Indian LIME is unsteady. It is difficult to define the shipment figure for new crop French Guinea ORANGE; some of the cheaper quotations may not refer to good new oil. Fair sales on spot of Japanese PEPPERMINT and the market continues steady.

Exchange Rates on London

The following is a list of the chief Continental and other exchange rates at the opening on Thursday morning:—

Centre	Quoted	Par	February 2	February 9
Amsterdam ...	Fls. to £	12.107	8.68½	8.60
Berlin ...	Mks. to £	20.43	11.65	11.67
Brussels ...	Belgas to £	nominal	27.68	27.70
Copenhagen ...	Kr. to £	18.159	22.40	22.40
Lisbon ...	Esc. to £	110	110	110
Madrid ...	Ptas. to £	25.24½	nominal	nominal
Milan ...	Lire to £	92.46	88½	89
Montreal ...	Dols. to £	1.86½	4.70½	4.70½
New York ...	Dols. to £	nominal	4.67½	4.68½
Oslo ...	Kr. to £	18.159	19.90	19.90
Paris ...	Fr. to £	124.24	177	177
Prague ...	Kr. to £	164.25	136½	137
Stockholm ...	Kr. to £	18.150	19.40	19.40
Warsaw ...	Zloty to £	43.38	24½	24½
Zurich ...	Frs. to £	25.2115	20.70	20.70

Bank rate 2 per cent.

Pharmaceutical Chemicals, etc.

RAATHER more inquiry is reported this week, with the general tone continuing steady. Convention prices for terpineol have again been reduced.

ASPIRIN (TABLETS).—The agreed scale of prices for bulk quantities continues steady at the recent reductions: Under 5,000, 2s. 10d. per 1,000 tablets; 5,000, 2s. 8d.; 10,000, 2s. 7d.; 25,000, 2s. 5d.; 50,000, 2s. 4d.; 100,000, 2s. 3d.; 250,000, 2s. 2½d.; 500,000, 2s. 2d.; 1,000,000, 2s. 1d. per 1,000 tablets. Wholesale distributors' prices for small quantities would be at higher figures.

BARBITONE.—Dealers report a small demand; spot, two cwt., 8s. 11d.; 56 lb., 9s. 2d.; less than 56 lb., 9s. 5d. per lb.

BENZOIC ACID (B.P.).—Continues steady, with fair inquiry: five cwt., 1s. 7½d.; one cwt., 1s. 8d.; smaller parcels, from 1s. 9d. to 2s. 2d. per lb., ex store, as to quantity.

BROMIDES.—Makers' scales of prices steady. POTASSIUM, B.P., five cwt., 1s. 8d.; one cwt., 1s. 9d.; 28 lb., 2s. per lb. SODIUM, B.P., five cwt., 1s. 10d.; one cwt., 1s. 11d.; 28 lb., 2s. 2d. per lb. AMMONIUM, B.P., five cwt., 1s. 11d.; one cwt., 2s.; 28 lb., 2s. 3d. per lb. net. Resale clause applies. 28-lb. parcels and one-cwt. cases free. Smaller quantities than 28 lb. at higher prices. Export quotations are maintained as follows: POTASSIUM, B.P., five cwt., 1s. 4d.; one cwt., 1s. 4½d. SODIUM, B.P., five cwt., 1s. 5d.; one cwt., 1s. 5½d. AMMONIUM, B.P., five cwt., 1s. 6d.; one cwt., 1s. 7d. per lb., f.o.b.

BUTYL CHLORAL HYDRATE.—Remains dull: spot, 14 lb., 8s.; 7 lb., 8s. 3d.; 1 lb., 8s. 6d. per lb., in 1-lb. bottles.

CAFFEINE.—The new scales of prices for Continental materials continue steady, as follows:—PURE: bricks, less than 56 lb., 9s. 9½d.; 56 lb., 9s. 7½d.; one cwt., 9s. 5½d. per lb. Powder, less than 56 lb., 10s. 1d.; 56 lb., 9s. 11d.; one cwt., 9s. 9d. per lb. Anhydrous powder, less than 56 lb., 10s. 6d.; 56 lb., 10s. 4d.; one cwt., 10s. 2d. per lb. CITRATE: less than 56 lb., 6s. 6½d.; 56 lb., 6s. 5½d.; one cwt., 6s. 4½d. per lb. delivered United Kingdom, duty paid. Cases and 5-lb. tins free.

CHLORAL HYDRATE.—Steady at makers' prices; duty-paid crystals, in 14-lb. free containers, five cwt., 3s. 2d.; one cwt., 3s. 3d.; 28 lb., 3s. 4d. per lb.; 28-lb. jars one penny per lb. extra.

CITRIC ACID (B.P. CRYSTALS).—Market continues steady: British material quoted at 1s. 0½d. per lb., less 5 per cent. discount, nominal and without engagement. Dealers' prices for imported material are competitive.

CREAM OF TARTAR.—Steady, with average inquiry: British material, 99 to 100 per cent., 92s. per cwt., less 2½ per cent. discount. Dealers' prices for foreign material competitive.

CREOSOTE (B.P.).—A limited business at keen prices: bulk quantities, in 25-kilo demijohns, 1s. 6d.; small parcels, 1s. 7½d. up to 2s. per lb., ex store.

EPHEDRINE.—Some competition noted for large bulk quantities: Hydrochloride, B.P., quoted at about 6s. per oz. for minimum 1,000-oz. lots; small quantities, up to 7s. Pure alkaloid is quoted from 7s. 9d. to 8s. 3d. per oz., as to quantity.

GALLIC ACID.—Market continues strong, tending to advance: spot, one cwt., 3s.; 56 lb., 3s. 1d.; smaller parcels, up to 3s. 6d. per lb.

LACTIC ACID (B.P.).—Market is rather dull: quantities, in carboys, 1s. 4d. to 1s. 5d.; in winchesters and bottles, 1s. 6d. to 1s. 10½d. per lb., as to quantity.

MERCURIALS.—Makers' prices for these products continue unchanged, although the metal has again advanced. Terms net, without engagement. Special prices for larger quantities and contracts. Bulk prices for assorted salts.

	Less than 28 lb.	Not less than 28 lb.	Not less than 112 lb.
Ammoniated Lump B.P. (White Precip.) ...	s. d. 6 4	s. d. 6 0	s. d. 5 11
" Powder B.P. ...	6 6	6 2	6 1
Bichloride Lump B.P. (Corros. Sub.) ...	5 7	5 3	5 2
" Powder B.P. ...	5 3	4 11	4 10
Chloride B.P. Calomel ...	6 4	6 0	5 11
Red Oxide Cryst. B.P.C. (Red Precip.) ...	7 5	7 1	7 0
" Levig. B.P.C. ...	6 11	6 7	6 6
Yellow Oxide B.P. ...	6 9	6 5	6 4
Persulphate White ...	6 6	6 2	6 1
Sulphide Black (Hyd. Sulph. cum. Sulph. 50%) ...	6 5	6 1	6 0

METHYL SALICYLATE.—Business continues fair, with makers' prices unchanged: spot, ten cwt., 1s. 1½d.; five cwt., 1s. 2d.; one cwt.,

is. 2½d.; less than one cwt., is. 3d.; smaller quantities, in bottles, up to 2s. per lb.

METHYL SULPHONAL.—Dealers' spot quotations unsteady: two cwt., 19s. 3½d.; one cwt., 19s. 9½d.; 56 lb., 20s. 2½d.; small parcels, up to 20s. 8d. per lb.

PARAFORMALDEHYDE.—Values steady: 100 per cent. powder, quantities, in kegs, is.; smaller parcels, from is. 1½d. to is. 6d. per lb., as to quantity.

PARALDEHYDE.—Values are steady: in carboys, quoted from about is. 2d., and in winchesters from is. 5d. to is. 6d. per lb.

PHENACETIN.—Continues to move in limited quantities at steady prices: crystals or powder, bulk quantities, from 2s. 6d.; smaller parcels, 2s. 7d. up to 3s. per lb., as to quantity.

PHENAZONE.—Dealers' prices are steadier: crystals, five cwt., 6s. 9½d.; two cwt., 7s.; one cwt., 7s. 3d.; and less, up to 7s. 6d. per lb., with powder 2½d. per lb. extra.

PHOTOGRAPHIC CHEMICALS.—Home makers' prices are as follows: **AMIDOL.**—28 lb., 8s.; 14 lb., 8s. 9d.; 7 lb., 9s. 6d., in free 7-lb. tins; under 7 lb., 12s. per lb., in free 1-lb. bottles. **CHLORQUINOL.**—1-lb. bottles, 21s. per lb. **GLYCIN.**—7 lb., 10s. 6d.; 1-lb. bottles, 13s. 6d. per lb. **HYDROQUINONE.**—56 lb., 4s. 10½d.; 28 lb., 5s.; 14 lb., 5s. 3d.; 7 lb., 5s. 6d.; in 1-lb. bottles, 6s. 6d. per lb. **MEIOL.**—28 lb., 9s. 6d.; 14 lb., 9s. 9d.; 7 lb., 10s. 6d., tins free; 3 lb., 12s., bottles free; 1-lb. bottles, 12s. 6d. per lb., bottles free. **ALUM (PHOTOGRAPHIC QUALITY).**—1 cwt., 21s. per cwt.; 28 lb. for 6s. **GOLD CHLORIDE.**—15-grain tubes, 45s. per doz. **MAGNESIUM POWDER.**—10s. per lb. **PARAMIDOPHENOL HYDROCHLOR.**—8s. 6d. per lb., bottles free. **POTASSIUM FERRICYANIDE.**—14 lb., 2s. 2d.; 7 lb., 2s. 4d.; 1 lb., 2s. 6d. per lb. **POTASSIUM METABISULPHITE.**—One cwt., 8d.; 28 lb., 9d.; 14 lb., 10d.; 7 lb., 1s. per lb. **PYROGALLIC ACID, CRYST.**—One cwt., 7s. 9d.; 56 lb., 8s.; 28 lb., 8s. 3d. net; 14 lb., 9s.; 7 lb., 9s. 9d.; less than 7 lb., 10s. 3d. per lb., less 2½ per cent., monthly account. Resale in small packages: 1-oz. bottles, 2s.; 4-oz., 5s. 3d.; 8-oz., 9s.; 16-oz. bottles, 16s. 1½d. each, less 3½ per cent. to the trade. **RESUBLIMED.**—1-oz. bottles, 2s. 6d.; 4-oz., 6s. 6d.; 8-oz., 11s. 3d.; 16-oz. bottles, 20s. 3d. each, less 3½ per cent. to the trade. **SODIUM (CARBONATE RECRYST.)**—5 cwt., 12s. 6d. per cwt.; 1 cwt., 15s. 6d. per cwt.; 56 lb. for 11s. 6d.; 28 lb. for 6s. **SODIUM HYPOSULPHITE, CUBES, CRYST.**—5 cwt., 17s.; 1 cwt., 19s. 6d. per cwt.; 56 lb. for 11s. 6d.; 28 lb. for 6s. **SODIUM SULPHIDE (PURE).**—7 lb., 1s. 9d.; 1 lb., 2s. per lb., bottles and jars free. **SODIUM SULPHITE, RECRYST.**—One cwt., 21s. 6d. per cwt.; 56 lb., for 13s. 6d.; 28 lb. for 7s.

POTASSIUM PERMANGANATE (B.P.).—British makers' scale of prices for home trade is as follows: Not less than one cwt., 10½d.; not less than three cwt., 10d., in drums; not less than 5 cwt., 9½d. in 1-cwt. drums and 9½d. in 5-cwt. drums, net, delivered buyer's station, drums free. Technical or commercial quality, one cwt., 96s.; three cwt., 91s. 6d.; five cwt., 89s.; one ton, 86s. 6d. per cwt., in 1-cwt. drums.

POTASSIUM SULPHOGUAIACOLATE.—Remains dull: spot quotations steady at about 6s. 2d. per lb., as to quantity.

QUININE SALTS.—Convention prices continue steady: Sulphate, 2s. 3d.; bisulphate, 2s. 3d.; ethyl carbonate, 2s. 11d.; salicylate, 2s. 11½d.; hydrochloride, 2s. 10d.; dihydrochloride, 3s. 1½d.; hydrobromide, 2s. 10d.; dihydrobromide, 3s. 1½d.; valerianate, 3s. 9½d.; phosphate, 3s. 5½d.; hydrophosphate, 4s. 1½d.; alkaloid, 3s. 1½d. per oz., 100-oz. tins free, carriage paid on bulk quantities.

RESORCIN.—Makers' prices; no imported material: 56 lb., 5s. 6d.; 28 lb., 5s. 7d.; 14 lb., 5s. 9d.; 7 lb., 6s.; smaller parcels, up to 6s. 6d. per lb.

SALICYLIC ACID (B.P.).—Makers' prices steady: five cwt., 1s. 7d.; one cwt., 1s. 7½d.; 28 lb., 1s. 10d.; 14 lb., 1s. 11d.; 7 lb., 2s. 0½d.; 4 lb., 2s. 2½d. per lb.

SALOL.—Demand modest, bulk quantities at keen prices: quoted from 2s. 2d. to 2s. 4d. per lb., as to quantity.

SANTONIN.—Market remains quiet: bulk quantities, £10 5s.; and small parcels, up to about £12 10s. per kilogram.

SODIUM BENZOATE (B.P.).—Fair inquiry: five cwt., 1s. 3½d.; one cwt., 1s. 4d.; smaller parcels, from is. 5d. to 2s. per lb., as to quantity.

SODIUM DIETHYLBARBITURATE.—Market is dull: spot, one cwt., 11s.; 28 lb., 11s. 3d.; 14 lb., 11s. 6d.; 7 lb., 11s. 9d.; smaller parcels up to 12s. 3d. per lb.

SODIUM SALICYLATE (B.P.).—Makers' scales of prices are steady: home trade, crystals or powder, five cwt., 1s. 5½d.; one cwt., 1s. 6d.; 28 lb., 1s. 9d.; 14 lb., 1s. 10½d.; 7 lb., 1s. 11½d.; 1 lb., 2s. 4d. per lb.

SULPHONAL.—Spot market keen, business slow: crystals or powder, two cwt., 15s. 5½d.; one cwt., 15s. 10½d.; 56 lb., 16s. 1d.; smaller parcels, up to 16s. 7½d. per lb.

TANNIC ACID (B.P. LEVISS).—Market is fully maintained and quoted at about 2s. 9d. to 3s. per lb., as to quantity.

TARTARIC ACID (B.P. CRYSTALS).—Continues steady: British makers quote at is. 1½d. per lb., less 5 per cent. discount, dealers offering foreign materials at competitive prices.

TERPINEOL.—Convention prices have been reduced as follows: ten cwt., 11d.; five cwt., 11½d.; one cwt., 1s.; smaller quantities, up to is. 4½d. per lb., net.

Crude Drugs, etc.

ACONITE ROOT.—Limited supplies of *Napellus* are quoted at about 80s. and Japanese at 110s. per cwt., ex store.

AGAR.—There has been a steady sale of spot goods and substantial market business in shipment goods for February-March and March-April dispatch: spot, Kobe, No. 1, 3s. 8d. to 3s. 9d.; No. 2, 3s. 7d., and in very short supply. Yokohama, No. 1, 3s. 5d. per lb. Japanese shippers quote Kobe, No. 1, 3s. 4d. to 3s. 5d.; No. 2, 3s. 2d. to 3s. 3d., and Yokohama, No. 1, 3s. 1d. per lb., c.i.f. Resellers: January-February, No. 1, 3s. 4d., and 3s. 3d. for February-March, with a good turnover reported.

ALOES.—Fair spot business in Curaçao. Mail advice states the oil wells are still attracting labour, and the prospects for the next crop are extremely poor; no shipment offers: Cape, spot, in boxes, 47s. 6d.; shipment, 43s. per cwt., c.i.f. Curaçao, spot, 180s., up to 190s. for livery.

ANTIMONY.—Chinese crude is quoted cheaper: Chinese, crude, spot, £36; shipment, February-March, £29, c.i.f. English regulus, £71 per ton, ex store.

BALSAMS.—Values are steady, business quiet: *Tolu*, 1s. 9d.; *Canada*, 3s. 1½d.; shipment, 2s. 10½d.; *Copaiba*, 1s. 8d.; *Peru*, 4s. per lb., spot.

BENZOIN.—A limited spot sale of Sumatra, and prices are steady at 72s. 6d. to 90s. per cwt. Siam, medium almonds, £26; bean and pea, £22; pea size, £20 per cwt.

BUCHU.—Sales continue to be limited to a few bales on spot at former rates, with rounds from is. 2½d. to is. 4d., as to quality. Shippers report they are not able to quote new crop.

CAMPHOR.—Not so much doing this week, but values are steady: Japanese monopoly BB brand, £7 10s. per 100 lb.; Japanese, natural, spot, tablets, 2s. 6d.; powder, 2s. 3d.; slabs, 2s. 2½d. per lb., ex store; shipment, tablets, 2s. 2d.; powder, 1s. 10½d.; slabs, 1s. 10½d. per lb., c.i.f. English refined flowers, one cwt., 3s. 1d.; 28 lb., 3s. 2d.; small lots, 3s. 3d. per lb. Transparent tablets, 4 oz., 8 oz. and 16 oz., 3s. 4d.; 1 oz. and 2 oz., 3s. 5d.; ½ oz., ½ oz. and ¼ oz., 3s. 6d.

CANTHARIDES.—A restricted spot business: Russian, 4s. 3d. to 4s. 6d.; Chinese, spot, 1s. 11d. to 2s. per lb., as to quantity.

CARDAMOMS.—A moderate business is reported, with the market steady as quoted: shipment, Aleppy greens, f.a.q. the season, 2s. 4½d., c.i.f.; Aleppy seed, 3s. 8d., c.i.f.; Mangalore seeds, 3s. 3d., c.i.f.; spot, Aleppy seed, 4s.; Mangalore seed, 4s. per lb. Aleppy greens, spot, 2s. 7d., ex store.

CASCARA SAGRADA.—Spot holders' prices are quite steady and a quiet business is reported: spot, 1938 bark, 52s. 6d.; 1937 bark, 57s. 6d.; 1936 bark, up to 65s. per cwt., ex store, duty paid. No shipment offers from the source. One offer of 1937 peel from New York at 54s., c.i.f.

CLOVES.—Values steady, market quiet: Zanzibar, spot, 8½d.; shipment, February-March, 8d. per lb., c.i.f. Madagascar, in bond, 8d.; shipment, February-March, 6½d. per lb., c.i.f.

The landings of Zanzibar in London during the week ended February 4 were 13, and the deliveries 20, leaving a stock of 283. From January 1 to date the landings of Zanzibar have been 13 and the deliveries 48. Landings of Madagascar for the week ended February 4 were 21, and the deliveries 56, leaving a stock of 247. From January 4 to date the landings of Madagascar have been 21 and the deliveries 217.

COCOA BUTTER.—Fair business, market steady: prime English, 8½d. to 10d. per lb.; foreign, 7½d. to 9d. per lb., as to quantity and quality.

COCONUT (DESICCATED).—Market is steadier: spot, fine, 17s.; medium, 17s. 6d. per cwt.; shipment, halves, February-March, 16s. 7½d. per cwt., c.i.f.

COD-LIVER OIL.—Bergen reports shipment business continues below average: finest Lofoten steam-refined non-freezing medicinal oil, 83s. per barrel, c.i.f. London. Small lots, on spot, about 130s. per barrel, ex store, duty paid. British finest medicinal oil, 115s. per 25-gallon drum, delivered U.K., with rebates for 25 or more drums.

COLOCYNTH.—Continues to be freely offered on spot, with values for pulp ranging from 9d. to 1s. per lb., as to quality and quantity.

DERRIS ROOT.—An indication of spot values is 5 to 6 per cent. rotenone and 17 per cent. ether extract, 9d. duty paid, and 8 per cent. rotenone, 11d. per lb. duty paid; shipment, 17 per cent. ether extract, 38s., c.i.f., and 4 per cent. rotenone, 62s. 6d. per cwt., c.i.f.

ERGOT.—A limited inquiry is reported and values continue steady: spot, Portuguese, 4s. 3d. to 4s. 4d. Polish, 3s. 8d. per lb., ex store, for fair quantities.

GAMBOGE.—Spot supplies of good Siam pipe are quoted at about £13 10s. per cwt., duty paid.

GENTIAN.—Some French root is quoted in small lots on spot at about 30s. per cwt., ex store.

GINGER.—Values for West African remain at low levels: West African, spot, 20s. 6d.; for arrival, 18s. 6d. per cwt., c.i.f. Jamaican, spot, bold, in barrels, 65s. to 75s.; medium, bold, in bags, 47s.; small grinding, in bags, 40s. to 42s. 6d. per cwt., c.i.f.

GUM ACACIA.—Continues steady on spot: Kordofan, cleaned sorts, spot, 40s.; shipment, 36s. per cwt., c.i.f.

HENNA.—Business has been poor: Egyptian, brown, 30s.; green, 35s. per cwt. for small parcels.

HONEY.—Market is doing a limited trade; values of all descriptions steady. Jamaican, 29s. for dark liquid manufacturing up to

40s. for set pale. Californian, white clover, 47s. 6d., duty paid. Canadian, 43s. to 46s. per cwt. Small lots of all descriptions at higher prices.

HYDRASTIS.—This market remains very slack: spot, 12s. 10½d.; shipment 12s. 7½d. per cwt., c.i.f.

IPECACUANHA.—More business reported and the tone is much healthier: Matto Grosso, B.P., spot, 6s. 6d. to 7s. as to test; shipment, 6s. 6d. per lb., c.i.f. Carthagenia, 5s. per lb., spot.

MENTHOL.—The Japanese product has been quiet. K/S brands, spot, 12s. 7½d. to 12s. 9d. Near afloat, 11s. per lb., c.i.f. Japanese shippers quote February-March, 10s. 7d., c.i.f., with re-sellers at 10s. 5d., c.i.f. Chinese, spot, 11s. 9d. to 12s.; shipment, March-April, 10s. per lb., c.i.f. French material at competitive prices.

MERCURY.—The shipment quotation for Spanish-Italian metal shows a further advance and is now at 73 dollars per bottle, f.o.b. Continent; spot, £15 14s. per bottle, ex store.

OPIMUM.—Market steady, some fair orders reported. Turkish, 13 per cent., 1s. 2d.; Bulgarian, 15 per cent., 1s. 2d. in original cases; Iranian, 12 per cent., 1s. 1d. per unit, landed and duty paid.

ORANGE PEEL.—Limited supplies of bitter ribbons offered on spot at about 9d. per lb.

PEPPER.—The market shows a fractional decline on the week, with business quiet: Lampong, in bond, 2½d.; shipment, March-May, 2½d.; August-October, 2½d., c.i.f. Tellicherry, spot, 4d.; shipment, February-April, 33s., c.i.f. Aleppy, spot, 4d.; shipment, February-April, 33s., c.i.f. White Muntok, in bond, 3½d.; shipment, March-May, 3½d., c.i.f. London Terminal Market: Black, March, 2½d.; May, 2½d.; July, 2½d. White, March, 3½d.; May, 3½d.; July, 3½d. per lb.

PIMENTO.—Rather quiet, but fully steady: spot, 8d. per lb.; shipment, February-March, 69s. per cwt., c.i.f.

QUILLAIM BARK.—The few shipment offers of whole bark are now reported to be in the region of £23 to £24 per ton, c.i.f.

RHUBARB.—Spot market is firm with variety of offerings restricted: rough round, 2s. to 2s. 4d. now asked for remaining stocks. Shensi, small to medium, 5s. per lb.

RUBBER.—Values level on the week, with business limited: standard ribbed smoked sheet, spot, 7½d.; February, 7½d.; March, 7½d.; April-June, 7½d.; July-September, 7½d.

SAFFRON.—Dealers' prices for small parcels of finest genuine Valencia are firm at 90s. to 92s. 6d. per lb., with lower grades at cheaper prices.

SEEDS.—**ANISE.**—Spot, duty paid, Spanish, 80s.; Bulgarian, 43s.; Syrian, 42s. 6d. **CANARY.**—Market quiet. The latest prices quoted spot, duty paid, are: Mazagan, 16s.; Morocco, 15s.; Plate, 13s. 6d.; Turkish, 13s.; Spanish, 25s. to 38s. **CARAWAY.**—Spot, duty paid, Dutch, 33s., 27s. 6d. quoted f.o.b. Holland. **CORIANDER.**—Market firm; sellers on spot at 17s. 9d., duty paid, and 16s. 3d. in bond; for shipment, 15s. 6d., c.i.f., quoted. **CUMIN.**—Spot: Malta, 46s., duty free; Morocco, 47s. 6d., duty paid, and 43s., in bond. **DILL.**—Indian 11 per cent., on spot, 18s. 6d. **FENNEL.**—Indian, 20s. to 22s. 6d. spot. **FENUGREEK.**—Morocco, spot, duty paid, 13s.; Indian, 13s. 6d., duty free. **MUSTARD.**—English, 21s. to 31s. 6d., according to quality.

SENEGA.—Spot market continues steady but quiet: spot, 2s. 9½d. to 2s. 10d. per lb.; shipment, nominal.

SENNA.—New crop Alexandrian pods are still awaited in London; market is generally unchanged. Tinnevely leaves: good green are scarce and some months must elapse before next wet crop reaches London. Spot, No. 1, 6½d.; No. 2, no good green available, with 3½d. to 4d. wanted for faded leaves; No. 3, 2½d.; No. 4, 2½d. Tinnevely hand-picked pods of fair colour, 5d.; darker grades, 3½d. to 4d. Manufacturing grades are short and nominal. Alexandrian hand-picked pods: old crop of good quality practically cleared. Medium No. 1, 3s.; No. 2, 2s. 3d.; No. 3, 1s. 9d.; inferior grades from 1s. to 1s. 6d. per lb., ex wharf, London.

SHELLAC.—At the advance the market is firm: spot, standard TN orange, 40s. to 43s.; fine orange, 52s. 6d. to 80s.; pure button, 47s. 6d. to 50s. per cwt. For delivery, TN, March, 39s. 6d.; May, 40s. 6d. For arrival, TN, February-March, 39s. per cwt., c.i.f.

TONKA BEANS.—Market is steady as quoted: fair frosted Para beans, about 2s. 6d. per lb., ex store.

TRAGACANTH.—Business has been quiet with all descriptions quoted unchanged: finest selected, white ribbon, £60; No. 1, white, £55 to £57 10s.; No. 2, white, £50 to £53; No. 3, white, £35 to £42 10s.; amber leaf, £32; cleaned amber sorts, £16; brown to amber leaf, £11 10s.; red leaf, £9 to £10; hoggy, £6 to £7 per cwt., ex store.

TURMERIC.—Not much inquiry for new crop for shipment. Madras finger and Rajapore are quoted at 30s., c.i.f., for prompt and 28s. per cwt., c.i.f., for March shipment. Spot, Madras finger, about 32s. per cwt., ex store.

WAXES.—**BEES'.**—The demand for these products has been quiet: Dar-es-Salaam, spot, 100s.; shipment, 95s., c.i.f. Benguella, 80s., in bond; shipment, 84s. 6d., c.i.f. Conakry, 90s. in bond; shipment, 84s. 6d., c.i.f. **CARNAUBA.**—Business remains slow: fatty grey, spot, 145s.; afloat, 140s.; shipment, February-March, 140s., c.i.f. Chalky grey, spot, 144s.; shipment, February-March, 135s., c.i.f. Primeira, spot, good quality, 187s. 6d.; shipment, February-March, 180s.; Mediana, spot, 177s. 6d.; shipment, 175s. per cwt., c.i.f.

Essential and Expressed Oils, etc.

WITH the better tone in the markets, business has shown a little improvement again this week. Sicilian lemon is steadier at the source. Japanese peppermint has sold well on spot.

ALMOND.—Quotations for quantities continue very cheap: English-made, cwt. lots, 2s. 4½d.; smaller parcels, up to 3s. per lb.; foreign, cwt. lots, 2s. 4½d.; smaller parcels, up to 3s. per lb. French bitter, 6s. to 6s. 1½d. per lb.

ANISE (STAR).—Rather easier terms are mentioned on spot, but business still seems moderate: spot, leads, nominal; tins, 3s. 3½d.; drums, 3s. 2½d. per lb., ex store; shipment, tins, 2s. 10d.; drums, 2s. 9½d. per lb., c.i.f.

AVOCADO PEAR.—Demand is of small account: spot, 46s. to 52s. 6d. per gallon, as to quantity.

BERGAMOT.—The Consortium shipment quotation for new crop oil continues unchanged at 15s. per lb., c.i.f., with not much interest shown: spot quotations vary according to grade of oil, with the genuine product from 15s. 3d. per lb.

BOIS DE ROSE.—Occasional spot inquiry, quoted steadily: drums, 5s. 9d., with smaller quantities, re-packed, up to 6s. 3d. per lb., ex store; shipment, 5s. 6d., c.i.f., minimum three drums.

CAJUPUT.—Business of small importance: B.P., 1s. 11d. to 2s. 4d. per lb., as to quantity, spot.

CAMPHOR.—Any small quantities of genuine Japanese white oil available on spot are firm as valued at 200s. per cwt., which price is reported to have been paid. No Chinese oil and no shipment offers.

CANANGA.—About steady on a quiet market: spot, 4s. 4½d. to 4s. 9d. per lb., according to quantity and packing; shipment, about 4s. 1½d. per lb., c.i.f.

Exports from Java in December, 1938, amounted to 2,070 kilog., against 2,800 kilog. in December, 1937, and 2,585 kilog. in December, 1936. Exports for the full year 1938 totalled 15,611 kilog., compared with 22,788 kilog. in 1937, 18,902 kilog. in 1936, 17,048 kilog. in 1935, 15,687 kilog. in 1934, 11,965 kilog. in 1933, 11,289 kilog. in 1932, 9,367 kilog. in 1931 and 10,055 kilog. in 1930.

CARAWAY.—Quite a fair spot business in limited quantities reported: Dutch rectified, 7s. 3d. to 7s. 9d.; crude, 6s. 9d. to 7s. 3d. per lb., as to quantity, landed and duty paid. Some shipment offers of Russian are reported.

CASSIA.—Spot demand still poor, and there are some very cheap sellers of good quality oil; shipment is firm and dear: spot, leads at about 3s. 3½d. and drums at 3s. 2½d. Shipment offers of lead from China at 3s. 4d. c.i.f.

CASTOR.—Moderate business, market steady: 39s. 6d. per cwt., in barrels, ex store, London. Hull, 2s. per cwt. less. Small quantities packed in cases, 4s. 6d. per cwt. extra.

CEDARWOOD.—Continues steady, and a fair business is recorded over the past month: African, in drums, 11½d.; smaller packages, up to 1s. 4d. per lb. American, in drums, 1s.; smaller packages, up to 1s. 4d. per lb.

CINNAMON LEAF.—Spot values for re-packed oil are steady: Ceylon oil, repacked in limited quantities, about 2s. 6d. to 2s. 9d. per lb., as to quantity.

CITRONELLA.—Shipment quotations for good quality Java oil are steadier, but still at low levels; business generally is restricted: Ceylon, spot, drums, from 1s. 6½d.; smaller parcels, up to 1s. 11d.; shipment, drums, about 1s. 4d. per lb., c.i.f. Java, spot, drums, about 1s. 7½d.; smaller parcels, up to 2s.; shipment, drums, around 1s. 1d. per lb., c.i.f.

Exports of citronella oil from Java in December, 1938, amounted to 202,771 kilog., compared with 152,450 kilog. in December, 1937, and 138,138 kilog. in December, 1936. Exports for the full year 1938 totalled 1,894 tons, compared with 1,419 tons in 1937, 1,602 tons in 1936, 1,659 tons in 1935, 1,783 tons in 1934, 1,522 tons in 1933, 970 tons in 1932, 886 tons in 1931 and 815 tons in 1930.

CLOVE.—Spot business continues fair, with all descriptions of oil steady: Madagascar, spot, drums, 2s. 8d. per lb., if available; smaller parcels, up to 3s. 3d. English distilled, 4s. 6d. to 4s. 9d. per lb., ex store.

COCONUT.—English deodorised is steady at £24 15s. per ton, in barrels, ex works.

EUCALYPTUS.—Oils of varying quality continue to be offered at well under replacement cost on current shipment quotations; the source takes a very strong view of the forward position. Shipment offers for February-March only. Australian, 70 to 75 per cent., tins, 1s. 6d.; drums, 1s. 5d.; 80 to 85 per cent., tins, 1s. 8d. per lb., ex store, with higher prices for small lots; shipment, 70 to 75 per cent., tins, 1s. 5d.; drums, 1s. 4½d.; 80 to 85 per cent., 1s. 7d. per lb., c.i.f.

GERANIUM.—Not much interest in these products, but Bourbon is reported rather steadier at the source: Bourbon, spot, 10s. to 10s. 6d.; shipment, 10s., c.i.f. Algerian, spot, 11s. 6d. to 12s.; shipment, about 11s. per lb., c.i.f.

GINGERGRASS.—A limited quantity is stated to be available on spot at about 7s. 3d. per lb., ex store.

GRAPEFRUIT.—Market remains quiet: Californian, 10s. 3d. to 12s. Florida, 11s. to 12s. 6d. per lb., ex store, as to quantity. An unofficial report from America states that it is proposed to increase the price of fruit by 30 per cent.

HO (SHU).—The limited spot stocks tend rather dearer, with any "improved" now 4s. 10½d. to 5s., and "extra" quality up to 5s. 3d. per lb. Shipment offers for May shipment only at high figures.

JUNIPER BERRY.—A limited spot business, with prices ranging, as to quality, from about 3s. 3d. to 3s. 9d. per lb., for limited quantities.

LAVENDER.—Dull and tending rather easier: finest quality 38 to 40 per cent. quoted at 12s. 3d. to 12s. 9d. per lb., with other oils at cheaper prices. Lavandin is offering at 5s. to 5s. 3d. per lb., ex store.

LEMON.—Rather more business reported on this market in new crop Sicilian hand-pressed oil; quotations are now at about 9s. 9d. to 10s. up to 10s. 3d. per lb., c.i.f. for good brands, and the source reports rather better trade and a steadier market. Machine-made oils are available at the usual discount. Spot quotations vary as to the grade of oil. Californian distilled in limited supply on spot at 1 dollar 54 cents per lb. Californian cold-pressed, 9s. per lb., landed.

LEMONGRASS.—Bulk quantities might be had on spot at cheaper than shipment quotations, but there is hardly any interest in this product; spot, 1s. 6½d. to 1s. 10d. per lb., as to quantity and packing; shipment, 1s. 4½d. per lb., c.i.f.

LIME.—Rather easier figures are noted here: West Indian distilled is in the region of 15s. 9d. to 17s. per lb., as to quantity.

LINSEED.—Raw oil, in small quantities, 26s. 3d. per cwt.; boiled oil, 29s. per cwt., ex works.

MANDARIN.—Spot holders' prices for this oil are at about 15s. 6d. to 16s. 6d. per lb.

OLIVE.—Moderate business, with prices about unchanged: B.P., 1 per cent., 6s. 1½d. to 6s. 3d. per gallon, in drums. Edible quality, ten 1-gallon tins, in cases, 84s.; twenty ½-gallon tins, in cases, 86s. per case; drums, 6s. 4½d. per gallon, ex store.

ORANGE.—The shipment market for French Guinea oil is reported rather easier, the recent advance in quotations for new crop oil not being maintained. Offers this week have ranged from 2s. 1d. to 2s. 2d., c.i.f., and some offers, possibly referring to old oil of doubtful quality, have been at cheaper figures: spot supplies of good oil are seemingly of moderate volume and quoted steadily, with drums at 2s. 7½d. and re-packed, in tins, up to 3s. per lb. Californian, small drums, 59 cents; two or more cases, 61 cents per lb., ex store. Florida, cold-pressed, 85 cents per lb., in drums, landed, London.

PALMAROSA.—A limited spot sale, with the market steady: spot, about 8s. to 8s. 1½d. per lb. for bulk purchases; shipment is steady at 7s. 6d. per lb., c.i.f. Java oil is available at about 4s. 3d. per lb., ex store.

PATCHOULI.—Quotations for genuine Singapore oil are steady, but the market is affected by cheap offers of oils of varying qualities: Singapore, spot, 10s. 6d. to 10s. 9d.; Seychelles, spot, about 9s.; Java oil, about 9s. 3d. per lb., ex store, for original packages.

PEPPERMINT.—The Japanese oil has met with a fair spot demand. Practically all the October-December shipments have now arrived, and there is no evidence of any distressed parcels on the market: spot, 4s. 6d. Japanese shippers quote February-March at 4s. 2½d., c.i.f., with bids at 4s. reported refused. Resellers at 4s. 1½d., c.i.f.; natural American oil, in drums, continues firm at 2 dollars 25 cents to 2 dollars 35 cents per lb., c.i.f.

PETITGRAIN.—Rather more doing in small quantities: spot, in cases, 3s. 6d. to 3s. 7d. per lb.; shipment, about 3s. to 3s. 1d. per lb., c.i.f., as to quantity. French, to come forward, quoted from source at 950 francs per kilogram.

RAISIN SEED.—Quiet, quoted unchanged: Californian, spot, 2s. 3d. to 2s. 6d. per lb., ex store, as to quantity.

ROSEMARY.—Dealers report some inquiry with most business in the cheaper blended oils: genuine Spanish quoted at 3s. to 3s. 6d. per lb., as to quality and quantity. Tunis, 2s. 6d. to 2s. 8d. per lb., landed, as to quantity.

SANDALWOOD.—Genuine East Indian Mysore, in one-case lots, steady at 20s. 6d. per lb. East India, produced outside the province of Mysore, 18s. 6d. to 19s. per lb., c.i.f., in bulk quantities. English-made West Indian, 7s. 3d. per lb. Australian, steady at 15s. 3d. per lb., for 7-lb. tins; one case at 14s. 9d. and five cases at 14s. 6d. per lb.

SASSAFRAS.—Spot values are in accordance with the quality of the oil: genuine natural oil of fine quality offered at 4s. to 4s. 3d. per lb., as to quantity.

SEARMINT.—Limited spot inquiry: U.S.P. oil, spot, about 9s. 3d. to 9s. 4½d.; shipment, 8s. per lb., c.i.f.

SPIKE.—Spot quotations for genuine fine quality Spanish oil are unchanged at about 5s. 3d. to 5s. 6d. per lb., ex store. Blended oils at cheaper figures.

TURFENTINE (AMERICAN).—London stocks on February 4 totalled 28,735 barrels: spot, London, 34s. 9d.; Hull, 35s. 6d.; Liverpool, 36s. 9d. per cwt. Market is steady.

VETIVERT.—Business of small account: Bourbon, about 15s. 6d. to 17s. per lb., and slightly less for drums, ex store.

Exports from Java in December, 1938, amounted to 1,104 kilog., against 885 kilog. in December, 1937. Exports for the full year 1938 totalled 12,660 kilog., compared with 19,747 kilog. in 1937, 16,300 kilog. in 1936, 13,137 kilog. in 1935, 5,819 kilog. in 1934, 3,293 kilog. in 1933, 1,597 kilog. in 1932, 492 kilog. in 1931 and 839 kilog. in 1930.

WORMSEED.—U.S.P. oil, spot, 9s. 3d. to 9s. 4½d.; shipment, 8s. 6d. per lb., c.i.f.; B.P., spot, 9s. 6d.; shipment, 9s. per lb., c.i.f.

Commercial Notes

Tanganyika Beeswax Exports.—Shipments during January-June, 1938, totalled 256 tons, valued at £22,346, compared with 288 tons, valued at £33,500, in the corresponding six months of 1937.

Eire Medicinal Imports.—Imports of medicines and medicinal preparations during 1938 were valued at £313,832 compared with £317,693 in 1937. Imports of druggists' wares in 1938 were valued at £24,150 compared with £20,580 in 1937.

Canadian Vanillin Imports.—Imports of vanillin into Canada during the 12 months ended March, 1938, declined to 16,765 lb. (\$43,578) from 33,026 lb. (\$83,594) in the corresponding period ended March, 1937. The decline continued during the three months ended June, 1938, when 903 lb. (\$1,971) were imported, as against 6,810 lb. (\$19,009) in the corresponding three-month period of 1937.

Taiwan Derris Industry.—It is estimated that during 1939 there will be about 650,000 lb. of dried derris roots available for shipment from Taiwan (Formosa). Of the 1938 total, about 40 per cent. has already been contracted for by Osaka dealers and insecticide manufacturers. Owing to the fact that local buyers cannot secure exchange permits for derris from Malaya and Borneo, however, it is possible that the entire 1939 crop may be taken by Japanese buyers. The possibility exists that Taiwan may soon become one of the leading centres of production for derris root, with natives planting the crop over large areas as a small holders' crop. Output of the plantings in Taiwan averages 1,850 lb. of dried roots per acre.

Mozambique Calumba Root Exports.—Portuguese East Africa exported 44 metric tons of calumba root during 1936. Countries of destination were as follows:—

Destination	Kilog.	\$	Destination	Kilog.	\$
France	11,417	288	Netherlands ...	6,949	180
Great Britain ...	12,938	452	Japan	2,934	128
India	4,640	37	Total	44,426	1,229
Zanzibar	5,548	144			

U.S.A. Ephedra Imports.—Arrivals in pounds during January-June, 1938, and July-November, 1938, were as follows:—

Origin	Jan.-June	July	August	Sept.	Oct.	Nov.
China	213,922	22,562	98,350	168,523	—	220,111
Japan	161,518	—	186,850	—	—	—
India	446,350	—	—	—	—	—
Spain	9,485	—	—	—	—	—
	831,281	22,562	285,200	168,523	—	220,111

U.S.A. Glycerin Trade.—Imports, exports, production and stocks for the first nine months of 1937 and 1938 were as follows:—

Item	Nine Months, 1937		Nine Months, 1938	
Imports—	lb.	\$	lb.	\$
Crude	12,698,934	2,154,003	8,656,355	726,631
Refined	6,935,459	1,657,743	2,386,300	200,048
Exports	1,065,991	269,790	3,218,075	362,738
	Production	lb.	Stocks on hand	lb.
	Nine Months, 1937	Nine Months, 1938	30 Sept., 1937	30 Sept., 1938
Crude, 80 per cent. basis	130,605,684	121,061,566	15,834,959	13,265,631
Dynamite grade ...	40,160,437	31,915,101	15,846,054	23,178,756
Chemically pure ...	69,925,649	68,742,469	23,882,862	44,278,211

Japanese Peppermint Oil Exports.—Exports of peppermint oil from Japan during the year ended June 30, 1938, were valued at 2,710,716 yen, which compares with 3,251,986 yen during the preceding year and 2,400,163 yen in 1935-36. The chief destinations were:—

Country	1936-1937	1937-1938
	Lb.	Lb.
China	6,000	—
British India ...	27,360	14,000
Straits Settlements	58,600	26,900
French Indochina ...	7,000	3,400
Great Britain	152,000	53,300
France	272,400	272,300
Germany	230,900	374,300
Australia	5,300	5,200
Others	81,900	70,300
	841,400	819,700

Correspondence

Correspondents may adopt an assumed name, but must in all cases furnish their real name and address to the Editor

British Pharmaceutical History

SIR,—The powerful advocacy of Dr. Edward Kremers in a letter in the *C. & D.*, January 28, p. 111, effectively reinforces the suggestion of Mr. William Mair at Edinburgh in December that an historical section of the British Pharmaceutical Conference should be formed. The need for methodical study of the neglected subject of pharmaceutical history in this country is, or should be, self-evident. Dr. Kremers' courteous phrase, "this ideal of professional activity," will serve as a reminder that the proportion of idealists among us in this respect is at present inconspicuous. Bell and Redwood's "Historical Sketch of the Progress of Pharmacy in Great Britain" lacks a sense of proportion; Mr. James Grier's excellent "History of Pharmacy" is confessedly a manual for students. Numerous antiquarian studies have appeared in your columns from time to time; these, collated, would be of signal value to an historian in preparing a work of more comprehensive scope. The collateral examination of museum specimens would need to be undertaken in addition. Many years must elapse before any collection of books and apparatus can hope to rival that in the Wellcome Historical Medical Museum; and I may suggest that any proposed assembling of such curios should be undertaken in a centre other than London. For the adequate discussions of obsolete apparatus an expert with experience of collections in several parts of the world is essential. Whether he or she should also be the historian is a question for decision after the proposed section of the Conference is established.—Yours truly,

HISTORIAN (3/2).

The Code of Ethics

SIR,—Many of us follow with interest the progress of the Code of Ethics, as at the last two Conference representatives' meetings unmistakable support was shown for this belated measure. At last week's meeting of the Pharmaceutical Society's Council (*C. & D.*, February 4, p. 126) it was decided to refer this matter, despite the organisation committee's report, to the various employers' organisations, including the company chemists. They, no doubt, will be especially tickled with that particular clause which has for its purpose the prohibiting of any advertisements which, at the expense of the individual pharmacist in business, implies a better and safer dispensing service. Will this question be referred next to the 50 per cent. of the Society's members who are employees? It would be really interesting if the National Pharmaceutical Union and the Scottish pharmacies strengthened the code, as already no doubt it has been made almost innocuous. On the success or failure of the resolution will rest the futurity or otherwise of holding the branch representatives' meetings. True democracy implies self-discipline from within; and the question of a code has already on two occasions been supported by duly accredited branch representatives.

Yours faithfully,

WYLFIA (7/2).

Shall We Join the Ladies?

SIR,—It has been my privilege and pleasure to attend most of the British Pharmaceutical Conferences during the past thirty years, so I was definitely intrigued by the discussion at last week's Council meeting (*C. & D.*, February 4, p. 127). In the old days, the ordinary chemist went to the Conference primarily for what he could learn to help him in his daily routine, and he usually came away stimulated and strengthened by practical hints supplied by working pharmacists like himself. Nowadays "mechanisation" (as Mr. Parry puts it) has changed all that and the "scientific discussions" are generally above the heads of the ordinary pharmacist. Thus the methods of the Executive Committee in banning the bulk of the Conference males from joining the ladies on their excursions are absurd. It is quite obvious that the Executive Committee as at present constituted is quite out of touch with the sentiments of the modern "Conferecer," and reconsideration of their apparently arbitrary powers is a crying and urgent need if the success of the Conference is to be continued.

Yours truly,

SENECTECUS (7/2).

Miscellaneous Inquiries

We do not undertake to analyse and report upon proprietary articles nor to publish supposed formulas for them

Jacobus (21/1).—REGISTRATION OF APOTHECARIES' ASSISTANTS.—The conditions for the registration of apothecaries' assistants under Section 4 of the Poisons and Pharmacy Act, 1908, were as follows:—(1) Applicants must have passed the examination for apothecaries' assistants before December 21, 1908; (2) they must have been for a period of seven years immediately prior to the date of their application continuously employed as whole-time dispensers, either in charge of the department or on similar responsible duties in an approved institution; (3) they must pay a fee of fourteen guineas; (4) application must be made before January 1, 1921.

R. G. (41/15).—BARIUM CARBONATE AND POISON LAW.—The question as to what provisions of the Pharmacy and Poisons Act, 1933, and the Poisons Rule made thereunder apply to the supply of barium carbonate illustrates that an apparently simple matter becomes a complex problem according to conditions of supply. Thus barium carbonate sold as such is a First Schedule poison, and any preparation containing any proportion of barium carbonate is also a First Schedule poison except articles (exempted by Poison Rule 10) containing barium carbonate which are prepared for the destruction of rats and mice. In addition there is a general exemption by Poison Rule 11 and the Third Schedule to the Poisons Rules in favour of pigments and paints other than pharmaceutical paints. The consequence is that barium carbonate supplied as a pigment or paint is completely relieved from all the formalities attached to First Scheduled Poisons, i.e. it need not be —

- (i) Labelled with the proportion of poison.
- (ii) Labelled "Poison" in red or on red background.
- (iii) Supplied only to known purchaser, or on signed order for purposes of purchaser's trade, business or profession.
- (iv) Subject to entry of sale in Poisons Register.
- (v) Subject to storage provisions of Poison Rule 23.
- (vi) Subject to transport conditions of Poison Rule 24.
- (vii) Retailed only by authorised sellers of poisons.

Conversely, if barium carbonate is sold as such, then it is subject to all the foregoing provisions. Hence in order to obtain exemption therefrom it is necessary only to supply same under another name as a pigment. The case of mixed pigments and paints containing barium carbonate is simpler, as these types of poisonous preparations are obviously those to which the exemption is intended to apply. The foregoing illustration exemplifies the complication ensuing from the endeavour to include all and sundry supplies within the scope of the poison law, followed by endless exemptions.

Retrospect of Fifty Years Ago

Reprinted from
"The Chemist and Druggist," February 9, 1889

From Pharmacy to Medicine

Since we published some time ago a correspondence with the General Medical Council, regarding the acceptance *pro tanto* of the certificate of the pharmaceutical Preliminary examination in place of the corresponding examination for registration as medical students, we have had numerous inquiries from students of pharmacy as to what further steps should be taken in order to meet all requirements preceding the actual commencement of medical studies. The subjects of the medical preliminary examination are, it will be remembered, English, Latin, arithmetic, algebra, Euclid, mechanics, and one of the following: Greek, a modern foreign language, logic, chemistry, botany and zoology. Of these subjects students who have passed the pharmaceutical Preliminary are exempted in the Medical Council's requirements from English, Latin and arithmetic, while anyone who has passed the Minor examination is further exempted from chemistry or botany—subjects which the Minor certificate covers; so that algebra, Euclid and mechanics are what the examined chemist and druggist has to pass before his name can be placed on the register of medical students; but those who have passed the Preliminary examination only must take an additional subject, such as Greek, a modern language or a science subject.



The inclemency of the weather prior to Christmas and the record rainfall for January produced an unusually heavy crop of Neuralgic and Rheumatic Pains, Chest Congestions, etc. Here are useful suggestions for customers:



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Neuralgia and Head Mixture					
Pectoral Elixir	}				
Bronchial Emulsion					
Cough Mixture, Black Currant and Ipecac.					
Cough Mixture, Children's					
Cough Mixture, "Famous"					
Ephedrine Inhalant. Bakelite capped bottles with glass rod, cartoned, display outers of six					
Iodine Ointment, Stainless	} Screw cap glass jars, cartoned, display outers of twelve				
Mustard Ointment					
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Wintergreen Cream	} Litho'd tins				
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one



two



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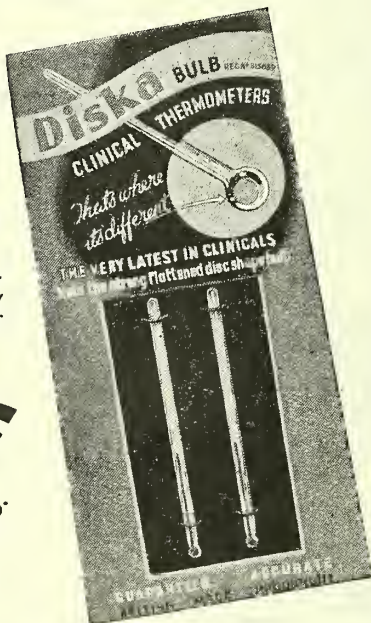
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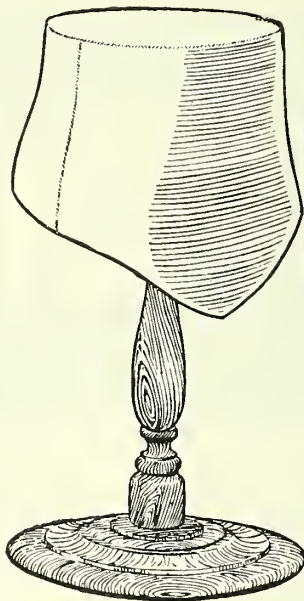
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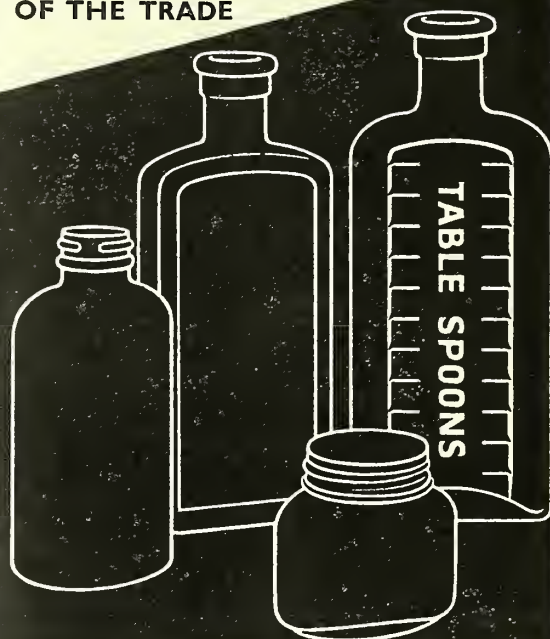
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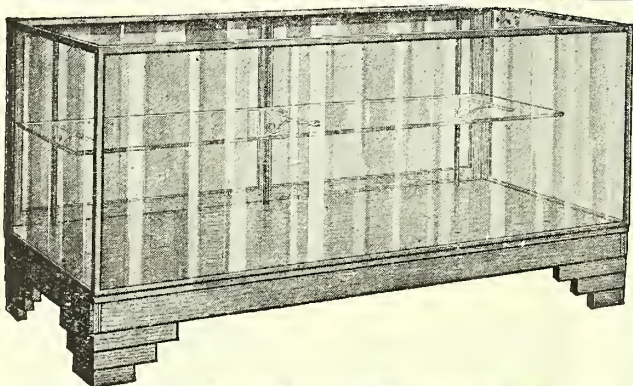


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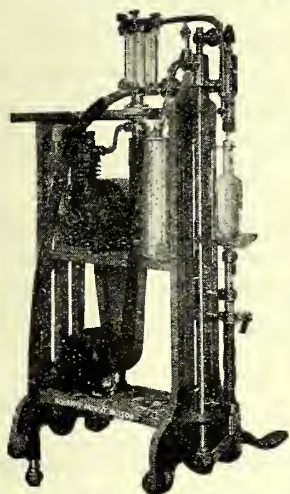
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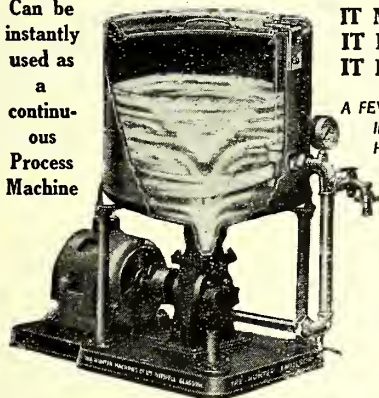
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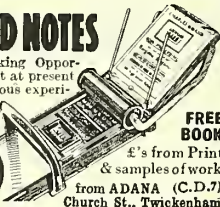
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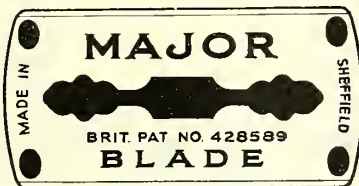
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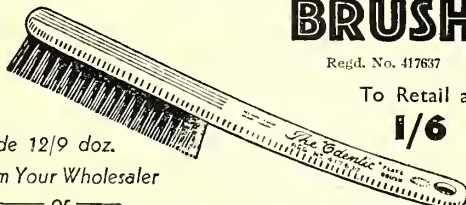
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24 FITZROY STREET, LONDON, W.1

WHY DO PEOPLE ASK YOU FOR SAMONA?

Because it is recommended and prescribed by Doctors for such present-day ills as **Neurasthenia, Insomnia, Nerve Strain, Depression, Inability to Concentrate, General Weakness, Change of Tissues, Hardening of the Arteries, Tired and Listless Appearance, Mental and Physical Exhaustion.**

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